



ASHRAE NATIONAL NEWS

American Society of Heating, Refrigerating and Air-Conditioning Engineers

Summer 2006

Volume 1

For Release:
April 10, 2006

Contact: Jodi Dunlop
Public Relations
678-539-1140
jdunlop@ashrae.org
1791 Tullie Circle NE
Atlanta, GA 30329

10 Addenda Proposed to ASHRAE Energy Standard

ATLANTA - Fan power limitation requirements for complex HVAC systems, such as those in hospitals and laboratories, would be improved under a proposed change to ASHRAE's energy standard.

Eight proposed addenda to ANSI/ASHRAE/IESNA Standard 90.1-2004, Energy Standard for Buildings Except Low-Rise Residential Buildings, are open for public comment until May 1, while two are available until April 16.

Included is addendum ac, which would expand application coverage to address complex mechanical systems.

"The standard would more effectively address static pressure associated with complex HVAC systems requiring specialized equipment in return air or exhaust air systems, such as those in hospitals," said Larry Kouma, who heads the group that oversaw the proposed addendum. "Appropriate allowances for discharge and return air flow treatment equipment would be allowed, enabling a clear avenue for these systems to demonstrate compliance using the prescriptive compliance methods of the standard. Or, if required, users can still use the standard's energy cost budget method."

The addendum also improves compliance consistency and strengthens stringency for simple systems with an easy-to-use format and structure;

Other proposed addenda open for comment until May 1 are:

- . Addendum aa adds definitions for lighting related terms;
- . Addendum ab clarifies which sections should be referenced in Section 11 and Appendix G;
- . Addendum ae changes Section 11 and Appendix G to clarify the way lighting power is to be modeled;
- . Addendum ai revises the lighting power requirements to eliminate confusion;
- . Addendum aj adds the ASTM test method E 1980 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low Sloped Opaque Surfaces;
- . Addendum al clarifies the terminology for metal building roofs and the required assembly U-factors for such roofs;
- . Addendum am allows minimum variable air volume turndown to be limited by the minimum ventilation requirement for a zone.

Two proposed addenda to Standard 90.1 open for review until April 16. They are:

- . Addendum ag clarifies that only HVAC fans that provide outdoor air for ventilation need to be modeled as running continuously
- . Addendum ah clarifies the budget building model heat recovery requirement by stating that condenser heat recovery must be included in the budget building model if it is a prescriptive requirement for the building.

To obtain drafts of or comment on proposed addenda aa, ab, ac, ae, ag, ah, ai, aj, al and am visit www.ashrae.org/standards.

The standard provides minimum requirements for the energy-efficient design of buildings except low-rise residential buildings.

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 (HVAC&R) to serve humanity and promote a sustainable world.

For Release:
April 4, 2006

Contact: Jodi Dunlop
Public Relations
678-539-1140
jdunlop@ashrae.org
1791 Tullie Circle NE
Atlanta, GA 30329

Changes to ASHRAE Standard 62.1 Ventilation Rates Proposed

ATLANTA - Ventilation requirements for high-rise residential buildings are among changes being proposed for ASHRAE's indoor air quality standard.

Three proposed addenda to ANSI/ASHRAE Standard 62.1-2004, Ventilation for Acceptable Indoor Air Quality, are available for comment until May 1. To obtain drafts of or comment on proposed addenda e, f and h, visit www.ashrae.org/standards.

Addendum 62.1h would add requirements for high-rise residential buildings to the standard's ventilation rate table.

These ventilation rates are somewhat higher than the residential rates included in ANSI/ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings, according to Dennis Stanke, chair of the Standard 62.1 committee.

"Standard 62.2 bases its rates on the assumption that infiltration always provides some ventilation and on the requirement that each dwelling unit includes operable windows for supplemental ventilation," he said. "The Standard 62.1 rates, on the other hand, assume that ventilation requirements are independent of infiltration and operable windows."

For example, the required mechanical ventilation rate for a two-bedroom apartment or condo could double compared to Standard 62.1-2001.

Stanke noted that increased outside air rates can mean more outside air conditioning tons, especially in humid climates.

Addendum 62.1e would add an informative appendix that summarizes the requirements for documentation found throughout the standard.

"Good documentation aids communication between all parties involved with the design, installation, operation and maintenance of ventilation systems," Stanke said. "Reducing communication failures reduces building-ventilation and indoor-air-quality problems."

Addendum 62.1f would change the purpose and scope of the standard to make them more consistent with its body. The purpose retains its dual goals of providing indoor air quality acceptable to human occupants that minimizes the potential for adverse health effects.

The scope no longer includes single-family houses or multiple-family buildings with three or fewer stories. These structures are covered by Standard 62.2.

The scope also states that the standard includes no specific prescribed ventilation rates for smoking-permitted spaces or for improperly separated non-smoking spaces (since these spaces also might contain environmental tobacco smoke).

"Although they contain no specific compliance requirements, statements of scope and purpose must be clear and accurate to help users of the standard apply it properly," he said.

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 (HVAC&R) to serve humanity and promote a sustainable world.

For Release:
April 18, 2006

Contact: Jodi Dunlop
Public Relations
678-539-1140
jdunlop@ashrae.org
1791 Tullie Circle NE
Atlanta, GA 30329

ASHRAE and Elsevier Launch New eLearning System

ATLANTA - A new eLearning system is being launched by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and Elsevier.

The new eLearning system provides complete learning experiences that focus on learning-by-doing that can be taken at any time and at the learner's own pace. It offers online instruction with interactive exercises and problem-solving demonstrations supplemented by authoritative course readers in eBook and printed formats.

The system also offers integrated assessment, skills tracking for earning CEU/PDH credits and online registration and retrieval of certificates of course completion.

"ASHRAE eLearning Systems from the ASHRAE Learning Institute offer a flexible, skills-focused, approach that meet today's learning needs," said Gordon V.R. Holness, P.E., chairman emeritus, Albert Kahn Associates, Inc.

Architects and

Engineers. "These learning on-demand programs are backed up with authoritative references from the ASHRAE Learning Institute, providing the 'real-world' training experience that employers are seeking."

Demonstration modules of the course are now available at www.ashrae-elearning.org. Individuals can register for the course online at the site, where there are contact details for employers and educators looking for preferential bulk deals.

"We believe the ASHRAE eLearning System will revolutionize HVAC&R professional development by allowing engineers to earn their CEU/PDH in an interactive online environment from their office or home without being burdened by the additional expense of accommodation and travel," said Jim DeWolf, Vice-President Publishing with Elsevier.

The first course Fundamentals of HVAC Systems became available April 3. The course will be supported by Learning Bursts, in-depth scenario-based training and simulation exercises with a heavy focus on applicability. Learning Bursts allow learners to apply the information presented and practice extensively without making costly mistakes in the real world.

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 (HVAC&R) to serve humanity and promote a sustainable world.

Elsevier is a world-leading publisher of scientific, technical and medical information products and services. Elsevier's 7,000 employees in 77 offices worldwide publish more than 2,000 journals and 1,900 new books per year, in addition to offering a suite of innovative electronic products, bibliographic databases, and online reference works.

For Release:
April 19, 2006

Contact: Jodi Dunlop
Public Relations
678-539-1140
jdunlop@ashrae.org
1791 Tullie Circle NE
Atlanta, GA 30329

ASHRAE Proposes Changes to IECC Based on Standard 90.2

ATLANTA - Two proposals based on ASHRAE's residential energy standard have been made to the International Energy Conservation Code.

ASHRAE has proposed that portions of ANSI/ASHRAE Standard 90.2-2004, Energy-Efficient Design of Low-Rise Residential Buildings, be adopted in the International Energy Conservation Code published by the International Code Council.

The standard provides minimum requirements for the energy-efficient design of residential buildings.

ASHRAE's proposal addresses two key areas where Standard 90.2 provides greater energy efficiency than the current IECC provisions, according to Chris Mathis, vice chair of ASHRAE's Code Development Committee who oversaw the proposals. These are fenestration solar heat gain coefficients (SHGC) in southern climates and modeling assumptions to quantify the benefits of exterior shading, as these are applied to code compliance using the performance path.

The first proposal seeks to require a lower SHGC, 0.37 from 0.40, for the reference house fenestration assumptions in climate zones 1 and 2.

These zones are the most southerly of United States climates as defined by code.

This makes the prescriptive envelope requirements consistent with those of Standard 90.2 and the reference house in the code equal in efficiency assumptions to Standard 90.2 when seeking compliance using the simulated performance alternative in the code.

For example, under the current 0.40 SHGC reference case in the IECC, up to 20 percent of the improvement over code needed to qualify for Energy Star Homes in hot southern climates can be obtained by improved fenestration, such as typical, low-E windows with a 0.32 SHGC, according to Mathis.

"The .40 maximum SHGC requirement was originally established in 1997 when the ratings by the National Fenestration Rating Council were in their infancy and few products were rated," he said. "Today hundreds of thousands of products are rated, many with significantly lower SHGC values. The 90.2 committee's analysis showed these values as cost effective for these climates, so we felt this element of the standard should be considered for the IECC."

The second proposal regarding Standard 90.2 deals with modeling assumptions related to external shading. Currently, the IECC assumes that the reference house design in the simulated performance alternative has no external shading of any type. However, many residential buildings have permanent exterior shading from overhangs and other architectural features, nearby trees and adjacent buildings.

The ASHRAE proposal seeks to make sure that the external shading assumptions of the reference house design are the same as those of the proposed house design. This would eliminate any "false credit" from manipulation of shading assumptions when seeking compliance with the IECC, according to Mathis.

The proposed changes are scheduled to be evaluated in September 2006 for possible inclusion in the 2007 IECC Supplement.

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 (HVAC&R) to serve humanity and promote a sustainable world.

For Release:
April 27, 2006

Contact: Jodi Dunlop
Public Relations
678-539-1140
jdunlop@ashrae.org
1791 Tullie Circle NE
Atlanta, GA 30329

ASHRAE Technical Program Features More Sessions

ATLANTA - ASHRAE's technical program will feature shorter sessions, more sessions and fewer conflicts, beginning with the Society's 2006 Annual Meeting in Quebec City, June 24-28.

ASHRAE has reconfigured the time allowed for seminars, forums and Transactions sessions, which will allow for greater time utilization for attendees.

"ASHRAE's technical program has remained in its current form for several decades," Kirk Mescher, Program Committee chair, said. "Input from attendees showed us they want more sessions packed with more technical content. Changes in presentation technology and the make-up of the technical program also have led to the need to modify the presentation schedule."

With the schedule changes, some 30 additional time slots have been created. These additional slots will allow for ASHRAE Distinguished Lecturers and two-part presentations. Time slots for seminars and Transaction sessions are being reduced to 1-1/2 hours from 2 hours.

Another change was made in renaming some of the sessions. Technical sessions and symposia receive equal treatment for technical review. Because of this, they are being renamed as Transactions sessions, which indicate the presentations are formally published in ASHRAE's technical resource, Transactions.

The program features a variety of sessions, including 22 programs in the area of alternative and sustainable technologies; 11 in commercial systems and applications; 25 in indoor air quality and ventilation; and eight in refrigeration.

The technical program is comprised of 80 seminars (presentations on a central or related topic with no published papers), 15 Transactions sessions (presentations with papers on a central subject), 18 open-discussion forums and a poster session. A total of 67 papers will be presented.

Registration for the 2006 ASHRAE Annual Meeting is \$635 (\$375, ASHRAE member) prior to May 19. After May 19, the registration fee will be \$750 (\$490, ASHRAE member). For more information or to register, visit www.ashrae.org/quebeccity.

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 (HVAC&R) to serve humanity and promote a sustainable world.