

# How ASHRAE Standards Become Codes

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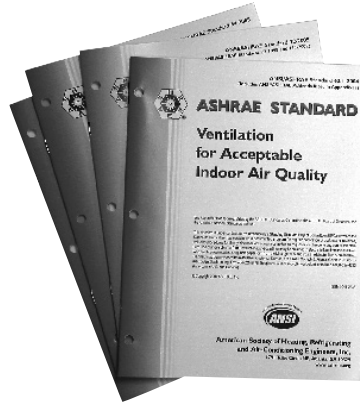
ASHRAE works with national code organizations to incorporate relevant ASHRAE standards and sections of standards into national codes. The focus of this article is on the International Code Council (ICC) although we also work with the International Association of Plumbing and Mechanical Officials (IAPMO) and the National Fire Protection Association (NFPA) in a similar fashion.

ASHRAE's preference is to have relevant ASHRAE standards incorporated in their entirety into national codes. For example, NFPA has included ANSI/ASHRAE/IESNA Standard 90.1, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, and ANSI/ASHRAE Standard 90.2, *Energy-Efficient Design of Low-Rise Residential Buildings*, in their entirety in NFPA 5000 — *Building Construction and Safety Code*<sup>TM</sup>. The International Energy Conservation Code (IECC) also includes ASHRAE 90.1 as a compliance path, but an alternate compliance path loosely based on previous and current versions of ASHRAE 90.1 is also part of the IECC.

The ASHRAE Code Interaction Subcommittee (CIS) of the Standards Committee is responsible for submitting relevant ASHRAE standards to national code organizations. The CIS members work closely with ASHRAE standards staff and the relevant standards project committees (SPCs). We review and submit proposals to the IECC and other code authorities to try to make relevant sections closer to ASHRAE standards. We also comment on proposals made by others where those proposals directly impact ASHRAE standards. ASHRAE is active in this process because we believe that ASHRAE has experts who provide an excellent knowledge base for the development of code language, and the consensus process inherent in ASHRAE standards produces a well-vetted document.

If an ASHRAE standard is already referenced in an existing code document, ASHRAE generally submits a proposal or works with the code organization to make sure the references to ASHRAE standards are updated to the most current version. For example, in the 2006 version of the IECC, ASHRAE Standard 90.1 was updated from the 2001 to the 2004 version. The ASHRAE Handbooks referenced in the IECC were also updated to the most current version. References to ANSI/ASHRAE Standard 15, *Safety Standard for Refrigeration Systems*, and ANSI/ASHRAE Standard 34, *Designation and Safety Classification of Refrigerants*, were updated to the 2004 versions in the International Mechanical Code (IMC).

To change the language in a code, ASHRAE needs to follow the code organization's procedures. The ICC has a procedure whereby any individual or organization can submit a code change proposal. For the 2006 code development cycle, proposals were due in August 2004. The code change proposals were then published and available to the public in November 2004. A first hearing was held by the ICC in



March 2005 and those in support (proponents) and opposed (opponents) were provided a brief opportunity to voice their opinion. The appropriate ICC committee then made a recommendation. The recommendations were published in May 2005. Public comments on the recommendations were due in June 2005, comments were published in August 2005, and a final hearing was held in September 2005. If there are no comments on a recommendation, that proposal becomes part of a consent agenda. If there is a public comment on a recommendation, then that issue is heard individually at the final action hearing.

During the last ICC code change cycle, CIS worked with ASHRAE SSPCs 90.1, 90.2, 62.1, and 62.2 to develop code change proposals. In addition to reference updates, ASHRAE submitted 10 proposals: eight to the IECC and two to the International Residential Code (IRC). At the first hearing, six of our seven proposals regarding ASHRAE 90.1 text in the IECC were successful. These dealt with insulation on suspended ceilings, economizers, shutoff damper controls, VAV fan controls, automatic lighting shutoff, and exterior lighting controls.

However, our proposals to incorporate ASHRAE 90.2 as an alternate compliance path in the IECC and IRC were not successful. Neither was our attempt to include ANSI/ASHRAE 62.2, *Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings*, as alternate compliance path in the IRC. We also considered whether we were for, against, or neutral on over 100 proposals submitted by others. Of those, ASHRAE took a position of "support" or "oppose" on 28 proposals by others. For these, the ICC committee action supported our position on 19 of 28 proposals. A proposal by others, which we supported, to have major portions of ANSI/ASHRAE 62.1, *Ventilation for Acceptable Indoor Air Quality*, as an alternate compliance path in the IMC, was not successful.

In some cases, ASHRAE has followed the lead of the ICC. We have changed the publication date of our standards to coincide with proposal due dates for the ICC; we now republish all of our code-intended standards on a three-year cycle. Also, for example, the simplified climate zones for energy criteria in the IECC are now part of ASHRAE 90.1 and ASHRAE 90.2.

Last June, the ASHRAE Board of Directors approved the formation of a Code Development Committee (CDC) that reports to CIS. The CDC has subcommittees that develop code change proposals related to portions of ASHRAE standards. Currently, efforts are underway for subcommittees related to Standards 34, 55, 62.1, 90.1, and 90.2. After CDC subcommittees develop draft code change proposals, these must be submitted for a vote by the corresponding SSPC and the CIS. Those proposals receiving a majority vote in favor are sent in as code change proposals.

CDC subcommittees, CIS, and the relevant SSPCs are now preparing for the next code cycle for the ICC. Proposals are due on March 24. We are also working within NFPA and IAPMO code cycle schedules.

## Full Circle Investors Recognized

More than 100 chapters and 12 regions attained this year's Research Promotion Full Circle Award. This award honors chapters and regions whose officers demonstrated their leadership and commitment to ASHRAE through their personal honor roll level investments.

### Chapter Leadership

**Region I:** Bi-State, Boston, Champlain Valley, Connecticut, New York, Northeast, Rochester

**Region II:** Hamilton, London, Montreal, New Brunswick/Prince Edward Isle, Ottawa Valley, Quebec, Toronto, Windsor

**Region III:** Anthracite, Baltimore, Central Pennsylvania, Delaware, Johnstown, Lehigh Valley, National Capital, Richmond, Roanoke

**Region IV:** Atlanta, Charleston, Greenville, North Piedmont, Southern Piedmont, South Carolina, Triangle

**Region V:** Central Indiana, Cincinnati, Cleveland, Columbus, Detroit, Northern Indiana

**Region VI:** Central Illinois, Illinois, Iowa, La Crosse Area, Minnesota, St. Louis

**Region VII:** Baton Rouge, Birmingham, Bluegrass, East Tennessee, Louisville, Memphis, Nashville, Northwest Florida

**Region VIII:** Alamo, Arkansas, Austin, Central Oklahoma, Dallas, Fort Worth, Houston, Monterrey, Northeastern Oklahoma, Shreveport, West Texas

**Region IX:** Big Sky, Black Hills Area, Idaho, Kansas City, Nebraska, New Mexico, Pikes Peak, Rocky Mountain, South Dakota, Utah, Wichita

**Region X:** Golden Gate, Hawaii, Northern Nevada, Orange Empire, Southern California, Sacramento Valley, San Diego, San Joaquin, San Jose, Sierra Delta, Tri-County

**Region XI:** Alaska, British Columbia, Inland Empire, Manitoba, Mid-Columbia, North Alberta, Oregon, Puget Sound, Regina, Southern Alberta, Saskatoon, Vancouver Island

**Region XII:** Central Florida, Florida West Coast, Goldcoast, Gulfstream, Jacksonville, Miami, Puerto Rico, Spacecoast, Southwest Florida

**Region XIII:** Hong Kong, Malaysia, Thailand

### Regional Leadership

Regions II, III, IV, V, VI, VII, VIII, IX, X, XI, XII, XIII

## HVAC Simplified in New ASHRAE Book

Step-by-step engineering design methods and tools are emphasized in a new design manual from ASHRAE.

Topics include equipment selection and specification, comfort and indoor air quality, ventilation air, ASHRAE standards, building assemblies, heating and cooling loads, electrical and control systems, and design of air and water distribution systems.

The book includes a CD with spreadsheet programs that incorporate design and computation procedures.

The cost of *HVAC Simplified* is \$59 for ASHRAE members. To order, contact 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 at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore).

## ASHRAE and CIBSE Issue Joint Statement on Climate Change

Continued reductions in emissions, guidelines leading to reduced energy consumption and responsible refrigerant use are encouraged in a new joint statement on climate change issued by ASHRAE and the Chartered Institution of Building Services Engineers (CIBSE).

The statement was signed at ASHRAE's 2006 Winter Meeting. "The use of HVAC&R technologies is an essential element of contemporary life," said Lee Burgett, ASHRAE president. "Yet, HVAC&R systems contribute to greenhouse gas releases through energy-related effects and through the effect of refrigerant losses. Together, ASHRAE and CIBSE are emphasizing improved energy efficiency, low- or zero-emission energy technologies and responsible refrigerant use."

"This joint statement makes very clear how our two bodies are determined to use

the expertise of our members internationally to address the challenges of climate change and sustainability," said Donald Leeper, CIBSE president.

CIBSE and ASHRAE provide building design, operation, and energy efficiency standards used globally. Since energy production often contributes greenhouse gas emissions to the atmosphere, these standards potentially reduce emissions. Energy-related impacts are addressed by reducing the equipment system and building energy consumption, and by modifying user behavior, thereby reducing emissions including CO<sub>2</sub>.

Jointly, the organizations will implement:

- Coordinated approaches to environmental issues at all stages of building and component life cycles;
- Adoption and development of designs, materials, components, systems and pro-

cesses that minimize environmental impacts, including climate change;

- Promotion of practices that encourage energy efficiency by building users;

- Encouragement of renewable energy supply into buildings and building engineering systems when economically feasible;

- Education of building owners, operators and engineers on the importance of energy efficiency and climate change; and

- Providing advice, information and assistance related to energy efficiency and climate change to governments and other influential bodies.

"ASHRAE and CIBSE reaffirm their joint commitment to developing and adopting energy efficient practices and resources, and call upon their members, governments, and colleagues in the buildings and related industries to likewise respond," Burgett said.