



MEMBERS FIRST!

MESSAGE FROM THE TECHNOLOGY COUNCIL CHAIR

The Society membership and staff are currently involved in a number of important technical activities. Just a few highlights are listed below:

Incoming Tech Council Members – Sheila Hayter and Art Giesler both have been elected to three year terms on Tech Council beginning July 2008. With their backgrounds on other ASHRAE committees and councils and their service on the Board of Directors, they will bring valuable experience, insight, and perspective to Technology Council.

HQ Renovation – Staff moved out of ASHRAE Headquarters in September 2007, with the renovation scheduled to be completed in June 2008. While there have been a few hiccups and change orders, the project is on schedule and on budget. Energy modeling is a challenge because no existing program can handle a dedicated OA system with a desiccant wheel, ground source heat pumps, and a variable refrigerant flow system in the same building. Progress can be viewed at:

<http://images.ashrae.biz/renovation/renovationalbum/11192007/index.html>

Distribution of AEDGs – Complimentary copies of the K-12 AEDG were sent to approximately 14,000 school administrators in late January. In addition, all of the Advanced Energy Design Guides are available as free downloads from the ASHRAE website at www.ashrae.org/technology/page/938. President Kent Peterson sent a message to all members announcing this initiative.

High Performing Buildings Magazine, which features case studies of innovative designs and technologies with actual performance data, was launched this fall and was very well received. It can be viewed at www.hpbmagazine.org/.

Conferences and Expositions Committee – The ASHRAE Board voted in NY to create a new committee to coordinate all ASHRAE conferences and expositions and respond to the many growing opportunities for ASHRAE.

Handbook Central Website was recently launched to facilitate handbook review and chapter updates by the cognizant Technical Committees. It can be viewed at www.ashrae.org/publications/page/1554.

Hot and Humid Design Guide – The first edition has been published and is available in the ASHRAE bookstore. The second edition will include additional material and is due out this time next year.

PEER REVIEW OF IAQ GUIDE

ASHRAE, in collaboration with AIA, BOMA, SMACNA, USGBC, and the U.S. EPA is developing an Indoor Air Quality (IAQ) Guide for commercial and institutional buildings. ASHRAE is soliciting peer review remarks on a 60% draft from these partner organizations, various ASHRAE Committees, and other interested individuals. The current review is open from February 19 through March 7. The document can be accessed, along with the review form, at:

www.ashrae.org/technology/page/678.

If you have time, please take a look at the draft and provide your feedback. Your input is important and will be greatly appreciated.

*ASHRAE Technology is for ASHRAE members. The **Members First!** newsletter is issued after each Technology Council meeting to provide highlights of ASHRAE technical activities and keep members informed. Our goal is to make the work of the technical side of ASHRAE open to all ASHRAE members. If you have technical questions for ASHRAE, please contact Steve Hammerling, Assistant Manager of Research and Technical Services, at 678 539-1158 or via email at shammerling@ashrae.org.*

Your feedback is welcome and encouraged! Please write to Andrew Persily, Vice Chair, Technology Council at andrew.persily@mail.ashrae.org.



RESEARCH ADMINISTRATION COMMITTEE (RAC)

The Research Administration Committee (RAC) works with ASHRAE's TCs, TGs, SSPCs, and Standing Committees to develop, manage, and disseminate ASHRAE research. The energy and commitment of these committees ensures that ASHRAE research continues to lead the advancement of HVAC&R arts and sciences.

Since the beginning of the 2007-2008 Society year, RAC has reviewed forty-three new research ideas and eighteen project work statements. Thirteen of the new research ideas have been approved and are currently being developed into work statements. Fourteen projects went out to bid in Fall 2007 and as many as twelve additional projects could be bid in Spring 2008. As always, a complete list of ongoing research projects, projects out for bid, and research ideas under development are available from the Research section of the ASHRAE website at:

www.ashrae.org/technology/page/39

The site also provides access to the final reports of hundreds of previous ASHRAE research projects, which is a free service for ASHRAE members.

ASHRAE research is paid for by member contributions and performed by contractors. However, the planning, development, and monitoring of ASHRAE's research program relies on countless hours of volunteer efforts by ASHRAE members. We recognize outstanding contributions with the annual Service to ASHRAE Research Award, presented each year at the Winter Meeting. Dr. John Andrews was honored in New York as the 2008 recipient of this award. For the past 15 years, Dr. Andrews has provided much of the research direction for TC 6.3 Central Forced Air Heating and Cooling Systems. In addition to his leadership, he authored work statements and served on project monitoring committees for four different research projects that supported the development of ASHRAE Standard 152, Method of Test for Determining the Design and Seasonal Efficiencies of Residential Thermal Distribution Systems. He also facilitated the co-funding of three of these projects by Brookhaven National Laboratories. Perhaps most significantly, over the past three years, Dr. Andrews has organized an informal Residential and Small Commercial Research Coordination Group, including representatives from one SSPC and eleven TCs in five sections, to address common research interests in the areas of residential and small commercial buildings.

The continued vitality of ASHRAE's research program depends on the development of the next generation of researchers by fostering the involvement of university faculty members and students in HVAC&R research. ASHRAE recognizes and encourages their involvement through a variety of awards and procedures. Education and

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RESEARCH ADMINISTRATION COMMITTEE cont'd

Outreach is one of the five major themes of the current Research Strategic Plan and we typically included student involvement as a criterion in proposal evaluation. Almost two-thirds of our current research projects are led by University investigators. The following programs are additional efforts to involve students and educators in ASHRAE research:

- **The Homer Addams Award** recognizes outstanding performance by a student working on an ASHRAE research project. At the New York meeting, the 2008 award was presented to Bereket Nigusse at Oklahoma State University. His work on research project 1326-RP Application Manual for Non-Residential Load Calculations is improving our ability to predict peak cooling loads, especially in highly-glazed rooms.
- **The New Investigator Award** provides support to new tenure-track faculty members, encouraging teaching and research in the HVAC&R field. The \$45,000 award is given annually. At the New York meeting, the 2008 New Investigator Award was given to Andrew Summers, an Assistant Professor at Miami University performing research to improve the wetability of metallic heat exchanger surfaces.
- **The ASHRAE Grant-in-Aid Program** provides \$10,000 fellowships to graduate students performing research in the HVAC&R field. Over the past two years, ASHRAE has awarded thirty-six fellowships to students at educational institutions representing ten of ASHRAE's thirteen regions and three countries.

The strategic direction of ASHRAE research is influenced by a broad range of factors within the building industry and the ASHRAE community. The impact of these factors are seen in two recent strategic documents developed by ASHRAE. The 2006 ASHRAE Strategic Plan includes the advancement of sustainable building design and operations. The ASHRAE Vision 2020 seeks to develop tools that would enable net-zero energy buildings (NZEB), which produce as much power as they consume. ASHRAE has also partnered with the US Green Building Council to help develop a National Green Building Research Agenda. Every five years, RAC organizes a Research Advisory Panel to develop a Research Strategic Plan for ASHRAE in the context of these diverse influences. The new panel was convened for the first time at the Winter Meeting in New York. Over the next several years, with input from ASHRAE members and the broader HVAC & R research community, the panel will develop the ASHRAE Research Strategic Plan 2010-2015.



TECHNICAL ACTIVITIES COMMITTEE

As a step toward achieving the Society's Strategic Plan (SP2006) objectives, TRG 4.SBGM (Sustainable Building Guidance and Metrics) and TRG 7.SBOMCA (Sustainable Building Operations, Maintenance and Cost Analysis) have cataloged current technical activities within ASHRAE and identified several potential connections with partner organizations. Building upon this foundation, a number of ideas for new activities were brought forward at the Winter meeting in New York. Each TRG is now developing brief descriptions of their top four ideas for discussion at the Summer meeting in Salt Lake City. Ultimately, the ASHRAE TC/TG/TRGs will develop specific, detailed plans to act upon these recommendations.

TC 9.6 – Healthcare Facilities, in coordination with the Environmental Health Committee, is proposing to develop a new design guide on Quarantine Stations and to update the ASHRAE HVAC Design Manual for Hospitals and Clinics. Both design guides are expected to address the latest technical guidance on SARS, bird flu, and other airborne-transmitted diseases. Potential funding and collaboration opportunities with other organizations (e.g., ASHE, AIA, CDC, NIH) are being pursued.

TC 9.11 – Clean Spaces met in New York to begin work on a new design guide for clean spaces. The guide will be developed by volunteers with expertise in clean space applications such as semiconductors, aerospace, pharmaceuticals, and bulk chemicals.

TRG7.UFAD has finished identifying opportunities to improve the current ASHRAE Underfloor Air Distribution Design Guide. At the New York meeting, the TRG completed a preliminary outline for the revised guide and is now in the process of writing new text. The revised guide is anticipated to be completed by January 2009.

Preparations for an April 2008 workshop to review the 2007 Applications Volume of the Handbook are underway. The workshop, sponsored by TAC and the Handbook Committee, will identify specific opportunities to make the Volume more clear, relevant, and useful. A review panel of twelve end-users has been selected and has already met twice to discuss their initial reviews. The April workshop will be the last in a series of four to review the Handbook. In the future, attention will shift to implementing the highest priority recommendations and tracking the progress of Handbook revisions.

At the New York meeting, the Technical Activities Committee and Technology Council presented the George B. Hightower Technical Achievement Award to Howard McKew, recognizing his many years of contributions to the

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ASHRAE Technical Committee program and his leadership since the early 1980's in improving the Systems and Equipment Handbook Volume. In particular, Mr. McKew's recruitment of young engineers to participate in Handbook reviews has provided fresh insight and resulted in many important changes. He is the sixth recipient of the award since its creation in Society year 1999-2000.

To become more familiar with the work and structure of the TC/TG/TRGs, please visit www.ashrae.org/technology/page/104. There, you can find committee scopes, links to web pages, Handbook improvement recommendations, and the E-mail Alias List. Using aliases, you can contact Section Heads and TC/TG/TRG Chairs. For more detailed information, you can also contact MORTS@ASHRAE.net. Your participation is valued and always welcome!

REFRIGERATION COMMITTEE

An ASHRAE Position Document on Natural Refrigerants is being developed, with several members of the Refrigeration Committee are on the Position Document Committee. An informal meeting of the PDC took place in New York, where the document development was initiated.

The Refrigeration Committee completed a detailed outline for a webinar entitled Introduction to Refrigeration. Speakers have been identified and confirmed. The presentation will be a 2-hour live web-seminar for chapters to use at their monthly chapter meetings. Information on this event will be forwarded to the Chapter Technology Transfer Committee and the Professional Development Committee. More information will be supplied to the chapters as this program gets to closer to release.

TC 10.3 (Refrigerant Piping) is leading an effort to develop content for a chapter on carbon dioxide for the 2010 Refrigeration Handbook volume. Progress is being made as an outline and chapter content is already available for review.

*To sign up for the Members First!
Newsletter Listserv,
please use the following link:*

<http://www.ashrae.org/publications/detail/16150>

ENVIRONMENTAL HEALTH COMMITTEE

The six Emerging Issues Papers developed in 2007 are being prepared for dissemination pending a final review to assure that these papers are providing useful information on these new topics and are not construed as Position Documents or other Board approved publications. Three new Emerging Issues papers are under development and will be completed by June 2008. They cover: "What are the roles and responsibilities of professional engineers to environmental health?", "Unknown and unintended consequences of the development of sustainable buildings?", and "Air Conditioning and Humidity control in hot humid climates with self contained equipment."

Revisions to the Environmental Health chapter for the 2009 Handbook of Fundamentals, which are more practitioner oriented, were approved by the committee for publication. The EHC Handbook subcommittee is assisting in the development of other environmental health information for inclusion in selected chapters of the 2007 Handbook of Applications.

EHC is the cognizant committee for several Position Documents, with status as follows:

- Airborne Infectious Diseases – final draft expected in March 2008.
- Unvented Combustion Devices – a revised title, purpose and scope was approved in January and the draft is expected by June 2008.
- Environmental Tobacco Smoke – a review of the currency of the references will be completed by March 2008.
- Indoor Air Quality – a new title, purpose and scope has been developed for a revision of this Position Document.
- Mold & Moisture – EHC is a co-cognizant committee with TC 1.12 for the revision of this Position document and a committee is being formed

EHC and TC 2.03 sponsored Seminar 42 "Indoor Air Chemistry, IAQ and Health" in New York City, with the following papers:

- Ozone's Impact on Public Health: Contributions from Indoor Exposures to Ozone and products of Ozone-Initiated Chemistry
- Evidence for Ambient Ozone's Impact on Building Occupant Health
- Ozone and ASHRAE: Exploring the connections

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EHC program subcommittee has prepared an ongoing series of program topics for presentation at the next several annual and winter meetings.

EHC has recommended that IAQ 2010 be held in Region XIII, with a focus on airborne transmission of infectious diseases, and has recommended a chair for the conference steering committee.

STANDARDS

UPDATE: ONLINE COMMENT DATABASE

In the last **Members First!** newsletter, the ASHRAE Standards Committee noted its efforts to develop an Online Comment Database, which will make it easier than ever to submit comments to public reviews and for PC's to receive, process and respond to comments.

The Online Comment Database was previewed to Standards Project Committee chairs in New York, and the current status of the database is described here.

ASHRAE Staff began reviewing the online system on February 6. Meanwhile the contactor is working to tie the online comment database to NetFORUM (the basis of ASHRAE's overarching software system) and add the necessary security.

The testing schedule calls for a fully working version that can be tested by February 14. At that time, ASHRAE headquarters will post some documents for comment and assign responsibility for those documents to a test committee, which will consist of all Standards Committee members and PC. That review will allow the test committee to login and have the authority to access all of the functions for the documents posted (comment, respond to comments, reply to responses, etc.). Testing committee members will also be providing comments through ASHRAE headquarters to the system developers to improve the function of the system.

Testing under this set-up will continue through the end of March. ASHRAE staff will then review all of the suggestions and comments collected during testing and determine which changes should be added immediately and which can be incorporated at a later date. After the changes are made the system developers will produce some basic reporting mechanisms and make them available in the system.

The plan is to have the system working and online for the March 2008 public reviews, which are scheduled to begin on March 21st. We will continue to keep you informed about the latest developments.