



Technology Council's

JULY 2011

MEMBERS FIRST! NEWSLETTER

VOLUME 2011 ISSUE 2

Good day and welcome to ASHRAE's Members First! Newsletter (MFN). The Members First! Newsletter is issued quarterly to provide highlights of ASHRAE technical activities and results from our Technology Council meetings, in order to keep all 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](mailto:shammerling@ashrae.org).*

*Your feedback is welcome and encouraged! Please write to Costas Balaras, Vice Chair, Technology Council at [costas@meteo.noa.gr](mailto:costas@meteo.noa.gr).*

### ASHRAE Members First! Newsletter; Highlights as of June 2011

- [Document Review Committee](#)
  - New Position Document committees formed.
  - Refrigerants Management Program final draft report.
- [Refrigeration Committee \(REF\)](#)
  - WE NEED YOUR INPUT! Survey says....
  - Updated and expanded webpage content.
  - New chapter programs on natural refrigerants and safe use of refrigerants.
  - Programs to improve the energy efficiency and sustainability of refrigeration systems.
- [Research Administration Committee \(RAC\)](#)
  - ASHRAE Innovative Research Grant.
  - New International Travel Grant.
  - Changes in the cycle for major updates to the Research Strategic Plan.
  - 6 work statements and 13 RTARs reviewed in Montreal.
- [Environmental Health Committee \(EHC\)](#)
  - Enhancement of communication to members via monthly column articles in ASHRAE Journal.
  - International conference - ASHRAE IAQ 2013
  - Updates on EHC objectives and several position documents
- [Standards Committee \(StdC\)](#)
  - Drafting a strategic plan specific to standards.
  - Development of modules on PC Chairs training.
  - Updates to the online comment database
  - List of approved projects and publications.
- [Technical Activities Committee \(TAC\)](#)
  - Information on the formation of the Multidisciplinary Task Group or MTG
  - Listing of all Sections and Section Head names

---

---

# Document Review Committee (DRSC)

Members First Newsletter July 2011

---

---

## Message from the Chair of the Members First! Newsletter committee and Position Document Committee: Spring 2011:

We have had a very busy spring leading up to the Montreal meeting. We are welcoming a new Vice President and Vice Chairman of Technology Council, Mr. Costas Balaras, so please join me in welcoming him.

As Presidential member Lou Flagg always said, "Let the process work". Proving that once again when a member wrote to Technology Council in May 2011 about what they thought was an important issue for the Society to consider, which was about "Commissioning", we took the idea to the Executive Committee in Montreal. They approved the start of a new Position Document Committee to explore the question, "Should Commissioning Projects Require a Licensed Professional Engineer to be in Responsible Charge". The committee is being formed now.

Technology Council will work to form an ad hoc committee to develop a policy statement regarding the use of Site and Source energy in our standards, technical documents and programs.

Technology Council will form an SAP, "Standards Advisory Panel", to provide guidance to Standards Committee and SSPC 90.2 to position Standard 90.2 as a leadership standard. The SAP and Council will consider increased energy efficiency, sustainability and health and safety. Just to remind you about our definition: An ASHRAE "Position Document" is a BOD approved document expressing the views of the Society on a current issue of importance to ASHRAE and its members. It includes a concise summary statement as well as supporting documentation, analysis and/or rationale, and recommendations. The purpose of these documents is to provide objective, authoritative background information to persons interested in issues within ASHRAE's expertise, particularly in areas where such information will be helpful in drafting sound public policy.

Environmental Health Committee (EHC) is working on a new position document, "Air Filtration and Cleaning" and a draft report is coming soon.

Chairman Mark Case and his full PD Committee are working on finalizing our new "Energy" Position Document.

Chairman Paul Francisco met with us in Montreal and told us that his PD, "Unvented Combustion Devices and IAQ" will be finishing their final draft soon so we can start that review process.

Our Position Document Committee "Managing Indoor Mold Problems through Managing Moisture in Building Systems" under the chairmanship of Lew Harriman, is working hard on its document and the final draft is expected in August 2011.

The new Position Document Committee "Building Safety and Security", under the chairmanship of Scott Fisher, will soon be completing their work to inform ASHRAE members, policymakers and the building industry about the impacts of HVAC&R systems on building safety and security and how system design and management can enhance the safety and security of building occupants.

The Position Document Committee "Refrigerants and their Use in the Built Environment", under the chairmanship of William Walters voted to change their name to "Refrigerants and their Responsible Use". Starting at their first meeting in Las Vegas, their purpose is to inform ASHRAE members, policymakers and the building industry about the major issues

related to the use of refrigerants in HVAC&R equipment and systems and complement other position documents dealing in a more detailed way with narrower aspects of refrigerant application. They will consider all refrigerant classes in a balanced manner. The plan is to limit discussion to refrigeration applications, i.e., such as excluding other applications of refrigerant materials as blowing agents, solvents, fire suppressants. Also discussed will be all major technical and policy considerations for refrigerant selection and use.

In Montreal, Technology Council heard the final draft report of the Ad Hoc Refrigerants Management Program from Chairman Danny Halel. It is currently being reviewed for final comments from the Refrigeration Committee and is expected to be published soon. Its scope is to develop a concept for a refrigerant management program and specify actions which ASHRAE can take to support development of the program. Refrigeration and air conditioning applications are growing worldwide and are critical contributors to the health, comfort, and welfare of humanity. However, the use of refrigerants in these applications can have consequences for the environment (as occurred with the early CFC and HCFC refrigerants) if the refrigerants are not managed throughout their lifecycle. Proactive steps in the handling and use of refrigerants will be necessary to minimize these impacts and to ensure that refrigerants, whether synthetic or naturally occurring, can continue to provide these important services as demands grow. The goal of this committee is to develop a concept for a refrigerant management program and specify actions which ASHRAE can take to support the development and implementation of the program. Technology Council approved drafts of the Ozone Depleting Substances (ODS) Position Document, the Natural Refrigerants Position Document, and the Indoor Air Quality Position Document, all will be submitted later this month to the Board of Directors.

Vice-President, Ross D. Montgomery, P.E.,  
2011-2012 Chair of Technology Council

---

---

## Refrigeration Committee (REF)

Members First Newsletter July 2011

---

---

WE NEED YOUR INPUT! You may have received an e-mail announcing the survey being performed by the Refrigeration Committee. We are looking for your input on how the Society can do a better job of providing the refrigeration resources you need for your job. We are getting good responses from Chapter members, and if you have responded, THANK YOU! If you haven't, there is still time as the survey is open until July 22nd. You can link to the survey through REF's webpage <http://www.ashrae.org/refrigeration>.

Once at our webpage please notice that REF has updated and expanded the webpage content. The top section will host new information or materials that the Committee develops. Then there are sections for Committee Operations, Chapter Resources, Technical Committee and Society Resources and Learning Resources. Under each section, look for new material as well as links to other refrigeration-related items within ASHRAE's website. As part of this update, REF has clarified the procedures for submitting packages for the Milt Garland and Comfort Cooling awards. The webpage material explaining these awards has been restructured to clearly show the criteria, the process and the materials required for the package. Examples of some new material include the presentations from the Las Vegas seminar organized by REF titled "Vapor Compression Cycles, Systems, and Components with Natural Refrigerants". There is also a link to the ASHRAE Journal to read the article which won the George C. Briley Award.

Speaking of natural refrigerants, in-coming ASHRAE President, Ron Jarnagin, has added chapter programs on natural refrigerants and safe use of refrigerants as new PAOE categories. To support the Chapters in garnering these points, REF is updating its Refrigeration Speakers List to include additional speakers on these topics. The new list should be available on our webpage in time for the fall start of chapter meetings.

REF is working on several projects which can help designers and operators to improve the energy efficiency and sustainability of refrigeration systems. One is a research project titled "Guide for Sustainable Refrigerated Facilities and Refrigeration Systems". In Montreal, ASHRAE's Research Administration Committee conditionally approved our statement of work for this guide, and we are now lining up co-sponsors to assist with funding. Another project which is just starting involves developing a commissioning guideline for refrigeration systems.

Finally, my year as Chair of the Refrigeration Committee has come to an end. The in-coming Chair, Doug Scott, has been actively involved in our sustainable refrigeration guide and our commissioning guideline so he is well qualified for his new role. I look forward to reading his reports in future Members First newsletters. In the meantime, if you have any comments for REF, please send them to [REFChair@ashrae.org](mailto:REFChair@ashrae.org).

Cynthia Gage,  
REF Chair (outgoing)

---

---

## Research Administration Committee (RAC)

Members First Newsletter July 2011

---

---

Let me thank you again for your continued support of the ASHRAE research program. Within RAC we are trying to be good stewards of these funds in support of both near and long-term research that will benefit the society internationally. With those goals in mind, I would like to describe a couple of new research initiatives that were approved at the Montreal meeting that may be of interest to you.

First of all, the ASHRAE Innovative Research Grant is a new program designed to provide seed funding for novel research deemed to have the potential to significantly advance the state-of-the-art in heating, ventilating, air-conditioning and refrigeration engineering. The idea is to encourage out-of-the-box research to complement the research proposed and guided by technical committees. This award will carry a base grant of \$50,000 per year for two years, with an additional \$25,000 available in the third year if it is matched by an industrial contributor. The intent is to fund one award each year. However, RAC is not obligated to make an award every year if there are no outstanding proposals especially when research funds are limited.

A new International Travel Grant was also approved at Montreal that supports Direction 3 of the ASHRAE Strategic Plan. This grant is offered to the principal investigators of ASHRAE sponsored research projects to improve worldwide dissemination of results from ASHRAE research. During the course of the research project or within one year of the completion of the project, the principal investigator (PI) for an ASHRAE sponsored research project will have the option of applying for this International Travel Grant to support travel expenses to a conference outside of North America to present a paper that is related to their ASHRAE research project. The maximum amount of the award is \$2500 and must be approved based on documentation from the PI regarding the conference, the paper that will be presented and a breakdown of the travel expenses.

We also made a change in the cycle for major updates to the Research Strategic Plan (RSP) from five to eight years. An 8-year cycle will allow more time for gathering meaningful feedback on the current RSP to enable any significant adjustments. Between major updates, RAC will review the RSP on an annual basis to identify the needs for modification, addition or deletion of goals. The review process will include tracking of alignment of RSP goals with the Societies Strategic Plan and with the goals of the Technical Committees (TCs) and Task Groups (TGs and MTGs) as documented in their Research Topic Acceptance Requests (RTARs). This process will also be helpful in modifying funding priorities to encourage under-represented project topics.

In Montreal, RAC reviewed 6 work statements and 13 RTARs. A number of them were returned to the TCs for improvement, but several were accepted. The work statements that were accepted went into the queue of projects that will ultimately be released for bid. There is currently a backlog of 13 approved work statements that are waiting for sufficient funds to be available in the next fiscal year. We did approve ten new research project awards at Montreal based on work statements that were released for bid this past spring.

We are trying to make sure your research contributions are used effectively and efficiently. As always, RAC welcomes feedback, suggestions, and criticisms, particularly if it will help us to do our job better.

James E. Braun,  
RAC Chair

---

---

## Environmental Health Committee (EHC)

Members First Newsletter July 2011

---

---

### Multi-disciplinary and International EHC

Environmental Health Committee (EHC) continues to provide ASHRAE members and the public with information on how to improve indoor environmental quality as we design, construct and operate more energy-efficient buildings. In 2011-12, we plan to advance several major objectives.

1. Enhance the communication to members on emerging and important indoor environmental quality (IEQ) issues and control strategies. This will be accomplished via monthly column articles in the ASHRAE Journal (coordinated by Dr. Andy Persily, NIST) as well as presentations at the society annual and winter meetings.

EHC is very excited to announce we have started to organize our next major international conference, ASHRAE IAQ 2013. It is tentatively scheduled for fall of that year in the beautiful and international city of Vancouver, BC, Canada with a theme of IEQ (Indoor Environmental Quality) in low energy buildings. It will be chaired by Steve Emmerich (NIST) and Hal Levin (Building Ecology Group). We are expecting to do this in partnership with the International Society of Indoor Air Quality and Climate (ISIAQ), with a level of partnership so far unprecedented for ASHRAE. Please contact me or either of the co-chairs for your ideas, offers to assist and suggestions on subjects of interest to you.

2. EHC is by its nature a multidisciplinary group. We will continue to promote coordinated multidisciplinary research on subjects related to indoor environmental health. This will be accomplished via reviewing IEQ related research topics that are submitted to Research Administration Committee (RAC) and offering comments and suggestions as well as propose multidisciplinary research topics to RAC. Areas of immediate focus will include airborne infectious disease control, ozone and ozone associated reaction products exposure control, and semi-volatile organic compounds (SVOCs) exposure control. We will also actively participate in IEQ related MTGs (multi-disciplinary task groups) such as the newly formed MTG on Energy Efficient Air Cleaning Technologies for High Performance Buildings.

3. Help permeate IEQ objectives and considerations in every relevant aspect of building systems design, construction and operation. After all, we build buildings for occupants who demand proper IEQ. Yet we want to achieve good IEQ in energy-efficient, cost-effective and resource-conserving manner. We will update ASHRAE's Handbook chapter on environmental health with significant revisions and provide inputs to all other handbook chapters that are environmental health relevant. Mark Jackson and Jan Sundell are leading this big effort with inputs from all EHC members. We will also continue to participate actively in several ASHRAE standards development including 55, 62, 90, 189, and Guideline 10, which are all directly relevant to indoor environmental quality and health.

4. Develop and maintain several important ASHRAE position documents including indoor air cleaning, indoor air quality, moisture and mold and unvented combustion devices, among others.

We welcome comments and suggestions from all members regarding IEQ issues that are most important to you and feedbacks on how EHC can serve you better. Please email Steve Hammerling at [shammerling@ashrae.org](mailto:shammerling@ashrae.org) or myself [jszhang@syr.edu](mailto:jszhang@syr.edu) for your questions, comments and suggestions.

Jensen Zhang,  
EHC Chair

---

---

## Standards Committee (StdC)

Members First Newsletter July 2011

---

---

Standards Committee has a very exciting year coming up. This year our focus is process improvement, strategic planning and training. We plan to begin drafting a strategic plan that complements Society's Strategic Plan but is specific to Standards. This will help increase the outlook of Standards beyond a year or two at a time.

We also will begin to release the developed modules on PC Chairs training. This training is meant to help PC Chairs with some of the basic procedures required for Standards. The first module called "Getting Started" is scheduled to be released in webinar format later this summer with several more to follow soon thereafter. Standards Committee is also putting together training for TC Chairs to guide the TC when it wants to create a new Standard or when a cognizant TC is asked to reaffirm, revise or withdraw a standard.

Since the last newsletter, Standards Committee has finished working on the updates to the online comment database. Commenters now have the option to draft comments and save them within the database, submitting them only when they are ready and the ability to withdraw comments as well. PC Chairs now have the ability to download all the comments for their committee for sorting and working offline. PC Chairs can also assign comments to specific responders and once the committee has completed its work to respond to the commenter, the information can be uploaded back to the database for sending to the commenters. The development and creation of the online comment database has been a multi-year project with many volunteers and ASHRAE staff time devoted to its development. It has significantly increased the ease in which PC's can respond to commenters effectively. Training on the use of the updates to the online comment database will be offered via webinar to commenters and project committee members later this summer.

More than four committees have used the new advisory public review (APR) process that Standards introduced last year. The goal of an APR is to introduce a new or potentially controversial change to a document for feedback before the full publication public review (PPR) process. All the comments received are treated as supportive and this gives the committee the chance to revise the document before publication public review. The result of these recent APR's has been overwhelming with many comments from the public. The committees are currently reviewing the comments and updating their documents, in most cases significantly based on the feedback they have received. So please continue to comment during both APR and PPR's, as this helps ASHRAE create better documents!

The Standards Committee and Board of Directors approved the following new projects:

1. Laboratory Method of Test of Fault Detection and Diagnostics Applied Commercial Air-Cooled Packaged Systems
2. Method of Test for Determining Hydronic System Balance Valve Capacity

The Standards Committee and Board of Directors approved the following for publications:

1. BSR/ASHRAE Standard 32.2-2003 (RA 201X), Methods of Testing for Rating Pre-Mix and Post-Mix Beverage Dispensing Equipment
2. BSR/ASHRAE Addenda c, i, j, k, l, n, and o to ANSI/ASHRAE Standard 34-2010, Designation and Safety Classification of Refrigerants
3. BSR/ASHRAE Addendum a to ANSI/ASHRAE 55-2010 Thermal Environmental Conditions for Human Occupancy
4. BSR/ASHRAE Addenda d and e to ANSI/ASHRAE Standard 62.1-2010, Ventilation for Acceptable Indoor Air Quality
5. BSR/ASHRAE Addenda i and l to ANSI/ASHRAE Standard 62.2-2010, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings
6. BSR/ASHRAE Addendum b, c, g, h, j, k, ci, ds, to ANSI/ASHRAE/IES Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings
7. BSR/ASHRAE Addenda ad, ae, and af to ANSI/ASHRAE Standard 135-2010, BACnet®—A Data Communication Protocol for Building Automation and Control Networks
8. BSR/ASHRAE Standard 145.2P, Laboratory Test Method for Assessing the Performance of Gas-Phase Air Cleaning Systems: Air Cleaning Devices
9. BSR/ASHRAE Standard 158.2-2006R, Methods of Testing Capacity of Refrigerant Pressure Regulators
10. BSR/ASHRAE/ASHE Addendum h to ANSI/ASHRAE/ASHE 170-2008, Ventilation of Health Care Facilities
11. BSR/ASHRAE /USGBC/IES Addenda c, d, e, f, h, j, k, l, o to ANSI/ASHRAE/USGBC/IES Standard 189.1-2009, Standard for the Design of High-Performance Green Buildings

SSPC 189.1 which writes and updates ANSI/ASHRAE/IES 189.1 Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings is currently working through a number of addenda and the next version will be released incorporating all approved addenda in October 2011.

Carol Marriott,  
Standards Committee Chair

---

---

## Technical Activities Committee (TAC)

Members First Newsletter July 2011

---

---

TAC has the job of assisting TCs so that TCs can do what they do best – develop technology, programs and publications. TAC is composed of Section Heads, which have the key responsibility to communicating with and for TCs. TAC also has Training, Liaison, Roster and Special Activities Coordinators. Each of our Section Heads handles one section and the Special Activities Coordinator handles the new Multidisciplinary Task Group (MTG) section.

Four new MTGs have been formed since last January. These are:

1. Building Integrated Modeling (BIM),
2. Building Performance Metrics (BPM),
3. Energy Efficiency Classification of General Ventilation Air-Cleaning Devices (EEC),  
and
4. Energy Targets (ET)

Each MTG includes TCs that span more than one Section. MTG functions can include Handbook, Program, Publications, Research, and Standards activities. The primary intent, however, is to have the MTG coordinate these activities within the TCs and TGs.

The four MTGs have a wide variety of representation by TCs. Their scopes are defined on ASHRAE's web site ([www.ASHRAE.org](http://www.ASHRAE.org)).

The **BIM MTG** has TC 1.5, TC 4.1, TC 4.2, TC 4.7, TC 7.1, TC 7.3, SGPC20, SPC205P and the US GSA as members. BIM's focus is standards and how to implement BIM in industry. This MTG connects industry to ASHRAE TCs.

The **BPM MTG** has TC 2.8, TC 7.4, TC 7.6, TC 7.9, SSPC 90.1, SSPC 90.2, GPC 14, BOMA, CIBSE, EHC, GSA and ISSO as members. BPM's focus is activities related to metrics of building performance within ASHRAE. MTG-BPM will also monitor related activities and represent ASHRAE interests outside of ASHRAE and provide a conduit for funneling information about the building performance metrics to ASHRAE members. In these efforts, the focus is on performance metrics for building energy use, indoor environmental quality, water consumption and carbon emissions. The MTG-BPM will be the responsible committee for the following ASHRAE Special Projects: SP 129, DASH High Performance Building Database and SP 133, PMP Best Practices Guide.

The **EEC MTG** has TC 2.3, TC 2.4, SSPC 90.1 and SSPC 90.2 as members with other interested groups which include SSPC 52.2, SPC 145, SPC 189.1, SPC 189.2, GPC 10P, GPC 32, SSPC 62.1 and SPC 170. MTG-EEC will coordinate the related activities of TCs and non-TC groups and provide guidance to the ASHRAE membership, manufacturers and end-users on how to classify air filter energy efficiency and the key factors affecting energy usage associated with the proper use of air filtration in new and existing buildings. EEC's focus is particulate and gaseous contaminants, the means of removing unwanted contaminants from the air, the effectiveness, energy efficiency, life cycle cost and sustainable operation of such air cleaning equipment.

The **ET MTG** has AEDG Steering, PDC, RAC, RP, SPC 105, SPC 189.1 and StdC as members. ET's focus is implementing recommendations from the Energy Targets Ad-hoc committee report dated September 21, 2010. This includes coordinating efforts in education, modeling, research, standard, marketing, advocacy, fund raising, and the Advanced Energy Design Guide (AEDG) development efforts within the Society. Research project initiation as the sponsoring committee is included in the scope of this MTG.

#### **TAC Updates:**

The (9) TC's in Section 2 deal with "Environmental Quality" which includes human, animal & plant physiology and response to environmental conditions and methods of remediation and control. The factors affecting physiology include gaseous and particulate air contaminants, sound, vibration, seismic and wind. Also, addressed are building impact and sustainability as well as the use of ultraviolet light treatment of air and surfaces.

A merger of TC 3.4, Lubrication, which addresses the interactions of lubricants, including the physical and thermodynamic properties of refrigerant-lubricant systems and TC 10.10, Management of Lubricant in Circulation, which is concerned with securing, correlating and disseminating information related to circulation of lubricants in refrigeration systems has been accepted by both TCs to become a new TC 3.4. Although a few details remain to be ironed out, it is expected that the two TCs will be effectively merged into a new TC 3.4 at the winter meeting in Chicago.

Training in Chicago will focus on the roster update process, including the new MTG roster procedures. If there are any topics you would like to see covered, just e-mail Michael at [TACcoord1@ashrae.net](mailto:TACcoord1@ashrae.net).

Your ASHRAE TAC Members are shown below. In future Members First Newsletters, updates will be provided as needed in specific sections.

Section 1 – *Victor Penar*

Section 2 – *Thomas Sobieski*

Section 3 – *William Murphy, Ph.D.*

Section 4 – *Michael Bilderbeck*

Section 5 – *Giustino Mastro, P.E.*

Section 6 – *John Dunlap, P.E.*  
Section 7 – *Drury Crawley, Ph.D.*  
Section 8 – *Stephen Duda, P.E.*  
Section 9 – *Thomas Lawrence, Ph.D.*  
Section 10 – *Eric Adams, Ph.D.*

Chair – *Charles Culp, Ph.D., P.E.*  
Vice Chair – *William McQuade, P.E.*  
Coordinating Officer – *Ross Montgomery*  
BOD Ex-Officio – *Charles Gullede*  
Liaison Coordinator – *Mark Fly, P.E.*  
Roster Coordinator – *Brian Fricke, Ph.D.*  
Special Activities Coordinator – *Walter Grondzik, Ph.D.*  
Training Coordinator – *Brian Silveti, P.E.*  
Staff Liaison – *Michael Vaughn, Manager of Research & Technical Services*

Charles Culp, Ph.D., P.E.  
TAC Chair

---

To sign up for the Members First! Newsletter Listserv, please use the following link:  
[www.ashrae.org/publications/detail/16150](http://www.ashrae.org/publications/detail/16150)