

Good day and welcome to ASHRAE's **Member's 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.

Your feedback is welcome and encouraged! Please write to Ross Montgomery, Vice Chair, Technology Council at rossmont@aol.com.

ASHRAE Member's First Newsletter; Highlights as of March 2011

• **Document Review Committee**

- ✓ Position Documents Status/Updates
- ✓ New Refrigerants Management Program Ad Hoc Committee
- ✓ New "Emerging Issue Brief" regarding "Ozone and Indoor Chemistry".

• Refrigeration Committee (REF)

- ✓ An update on REF activities
- ✓ George C. Briley ASHRAE Journal Article Award
- ✓ Ad Hoc Committee to promote refrigeration at the chapter level
- ✓ Refrigeration Technical Committee (TC.
- ✓ New "Refrigerants Management Program" Ad Hoc Committee
- ✓ May 1, 2011 submission deadline for the Milt Garland and Comfort Cooling awards

• Research Administration Committee (RAC)

- ✓ Grant-in-Aid (GIA) award recipients
- ✓ The 2011-2012 Life Member Club grant recipients
- ✓ RAC Work Statement approvals

• Environmental Health Committee(EHC)

- ✓ Update on ozone air cleaning for HVAC Systems
- ✓ US Veterans Administration and the Malaysian Ministry of Health are in discussions with EHC.
- ✓ Updates on Several Position Documents

• Standards Committee (StdC)

- ✓ The Phase II refinements of the Online Comment Database
- ✓ Updates on Standards, Users Manuals, and the Facility Smart Grid Information Model
- ✓ The refined UML model public review

• Technical Activities Committee (TAC)

✓ Information on the formation of the Multidisciplinary Task Group or MTG

Document Review Committee (DRSC)

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We have had a very busy New Year and spring season in this committee.

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.

We are working on the following new Position documents:

The Environmental Health committee will be naming a chairman soon and is starting work on a new Position Document, the topics of "Air Filtration and Cleaning".

Chairman Mark Case and his full committee are working on our new "Energy" Position Document. We plan to add at least one more member to his group.

Under chairmanship of Lew Harriman, our Position Document Committee, "Managing Indoor Mold Problems through Managing Moisture in Building Systems", is working and expecting its first draft soon.

The new Position Document Committee named "Building Safety and Security", under the chairmanship of Scott Fisher, is beginning 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 chairmanship of William Walters, had 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 to complement other Position Documents that have narrower aspects of refrigerant applications. The committee 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.

The new Ad Hoc Committee, "Refrigerants Management Program", was recently launched. Chairman Danny Halel gave the Technology Council a presentation on its purpose and schedule. Its scope is to develop a concept for a refrigerant management program and specify actions. The development of the program can be supported by ASHRAE. Refrigeration and air conditioning applications are growing worldwide; since they 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 development and implementation of the program.

We are looking at starting more Position Documents in the near future; perhaps the Environmental Health Committee will bring forward one named "Environmental Health in Green Buildings".

Environmental Health Committee has produced a new "Emerging Issue Brief" regarding "Ozone and Indoor Chemistry". More of these can be seen at http://www.ashrae.org/members/page/189.

Vice-President Ross D. Montgomery, Vice Chair of Technology Council

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Refrigeration Committee (REF)

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At the Las Vegas meeting, REF's Consultant, Don Siller, gave a presentation to the Chapter Technology Transfer Committee updating them on REF activities. His presentation was well received and is now available on the REF webpage. CTTC and REF will form an Ad Hoc Committee to advance refrigeration at the chapter level and to identify opportunities for REF to support the chapters with their refrigeration needs. If you have any suggestions, we welcome all input. Send your comments to REFChair@ashrae.net.

Also at the Las Vegas meeting, REF awarded the George C. Briley ASHRAE Journal Article Award to Richard Royal. Royal was recognized for his article "Heat Recovery in Retail Refrigeration" which was judged by the Refrigeration Committee as the best refrigeration-related article published in the ASHRAE Journal during the 2009-2010 Society Year. The article is in the February 2010 ASHRAE Journal and is available at the ASHRAE website.

REF has developed a Refrigeration Technical Committee (TC) Activities report to be used for Chapter outreach. The Refrigeration TC Activities report will show which TC's are cognizant over the various refrigeration standards and handbook chapters, so that if a member has a suggestion or question, they will know who to contact. It will also provide information on recent and upcoming refrigeration programs and research, so that members can see the latest topics of importance to the TCs. The report will have hyperlinks to connect the member to the TC's webpage, to the bookstore to purchase a standard or final research report, or to the meeting program to see speakers and presentation titles. This report is being completed now and will be rolled out in the next few weeks.

Remember that submissions for the Milt Garland and Comfort Cooling awards are due by May 1st. The new submission format includes a cover form, similar to the forms required by the other technology awards. The cover form includes the required release information from the owner, and requires the Chapter and Owner information which REF will need to ensure that the Chapter with the winning submission gets their recognition, as well as the plaque, to present to the owner. Information on the award procedures can be found at REF's webpage: http://www.ashrae.org/refrigeration. The webpage also includes some introductory and background material on these awards to assist members in securing the participation of owners or others who's permission is needed for the submission.

Research Administration Committee (RAC)

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I'd like to begin by thanking you for your contributions to ASHRAE research. One of the extremely important uses of ASHRAE research funds is for Grant-in-Aid (GIA) awards that provide \$10,000 grants to graduate students, who are pursuing research on topics of importance to ASHRAE. Since it began in 1968, the GIA program has provided over 500 awards to graduate students. Many of the awardees have made and continue to make significant contributions within ASHRAE research, publications, and other technical activities, including some who might be familiar to you: Charles Dorgan, Maureen Grasso, Daryl Erbs, Jeffrey Spitler, Moncef Krarti, James Braun, John House, Patrick O'Neill, Gregor Henze, Jelana Srebric, Chad Dorgan, Travis Horton, Jeffrey Siegel, Haorong Li, Atila Novoselac, and Athanasios Tzempelikos. The investment that ASHRAE makes in the GIA awardees helps to build a strong foundation for the future by engaging these students in ASHRAE technical activities at an early stage of their career.

At this past Winter Meeting, RAC received 66 GIA applications and made 22 awards to the following students, who will undoubtedly contribute to the future of ASHRAE and the HVAC&R industries:

Bikash Acharya
Aleksandar Andelkovic
Simge Andolsun
Stephen Bourne
Howard Cheung
Jordan Clark
University of Maryland
Technical Science Novi Sad
Texas A&M University
University of Texas
Purdue University
University of Texas

Brian Fronk Georgia Institute of Technology

Caroline Hachem Concordia University
Vibhas Jha University of Maryland

Kvle Konis University of California-Berkeley

Abhinav Krishna

Rurdue University

Ki Sup Lee
Purdue University

Shichao Liu
University of Texas

Wei Liu
Tianjin University

Raphael Mandel
Peter May-Ostendorp
University of Colorado

Amanda Nagavarapu Georgia Institute of Technology

Kashif Nawaz University of Illinois

Amanda Pertzborn University of Wisconsin Madison

Sugirdhalakshmi Ramaraj Purdue University Miao Wang Purdue University Feini Zhang University of Illinois

Aleksandar Andelkovic and Ananda Nagavarapu hold the added distinction of being named the 2011-2012 Life Member Club grant recipients as the top one and two rated applicants, respectively. These two grants are supported by a financial contribution from the club.

RAC also selected a Homer Adams and New Investigator awardees at the Winter Meeting. The Homer Adams Award is for a graduate student who is performing research under an ASHRAE

research grant. Sebastian Herrman was selected from a total of three nominations this year to be the 2010-2011 Homer Addams Award recipient based upon his work on ASHRAE research project RP-1485 "Thermodynamic Properties of Real Moist Air, Dry Air, Steam, Water, and Ice". Five nominations were received for the 2011-2012 New Investigator Award to support tenure-track Professors beginning their careers. Anthanasios Tzempelikos of Purdue University was selected as the recipient of this distinguished award.

Steven T. Taylor of TC 4.3 (Ventilation Requirements and Infiltration) received the Service to ASHRAE Research Award for his extensive contributions to all aspects of the TC's research program.

RAC expects to release 17 RAC-approved work statements that have been on-hold due to funding constraints. Five other projects remain in the on-hold category until additional funds can be made available.

James E. Braun, RAC Chair

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Environmental Health Committee (EHC)

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The primary purpose, of using energy and resources for buildings, is to keep indoor environments healthy, comfortable and productive, as we strive for sustainability, energy and resource conservation, and making buildings green.

One of the primary purposes of the Environmental Health Committee (EHC) is to keep this message in the forefront as building performance laws, regulations, metrics, labels, and other efficiency goals are developed and disseminated.

This will help avoid a repeat of the experience of the 1970s, where reduced ventilation and increased building tightness, resulted in a dramatic increase in building-related symptoms and diseases. In fact, ASHRAE's Board of Directors created EHC in the mid-1980s, to provide guidance, in response to this.

ASHRAE can continue to play a leadership role by using its highly respected voice in building energy matters to provide the most effective and meaningful metrics and tools to evaluate IEQ in any programs intended to reduce energy, particularly in existing buildings. EHC pursues these goals with specific actions and work, for instance:

- A literature and product review, and cost benefit analysis of ozone air cleaning for HVAC Systems was recently approved; which will help designers make sure that outdoor ventilation air makes the building healthier (Work Statement 1491-WS).
- Groups, as diverse as the US Veterans Administration and the Malaysian Ministry of Health, are in discussions with EHC concerning possible research to evaluate what ventilation strategies are truly effective at reducing the risk of airborne infectious disease transmission.
- Research priorities, such as the one on airborne infectious disease, mentioned above, are often driven by what ASHRAE calls Position Documents (PDs). Therefore the development of these PDs is often an important step. For this and other reasons, EHC has several in various stages of development and revision.

- A revision of the current position document on, "Minimizing Indoor Mold Problems Through Management of Moisture in Building Systems", is currently under way and is being led by Lew Harriman.
- What filtration products really make a difference and are there some that can actually do
 harm (ozone generators come to mind) to the building environment? Are terms like air
 purifier used too casually and what do products that use this term actually do? An Air
 Filtration and Cleaning Position Document scope, under the leadership of Pawel Wargocki,
 was recently approved to set research priorities and educate members, the public and
 policymakers about these issues.
- A re-write of the IAQ Position Document, led by Steve Emmerich, is close to presentation to Technology council for approval. I know this PD will be very important to maintain focus on the indoor environment as industry, governments and the public work towards greater efficiency.

For more information about these or any other EHC activities, please do not hesitate to contact me, other EHC members or the individuals mentioned above.

Larry Schoen, EHC Chair

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Standards Committee (StdC)

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The Phase II refinements of the Online Comment Database were successfully demonstrated at the PC Chair's Breakfast in Las Vegas. The changes shown included the new sorting features, the save comment draft feature, the withdraw comment feature, and the export/import of comments feature. The intent is to begin testing in mid-spring, so that the system will be available for committee use after Montreal. Requests for volunteers to test the new system will be sent out later in the spring. The Standards Committee has developed a plan for improved training for project committee chairs to help them do their jobs better and more efficiently. The goal is to have the training materials completed by July 1, 2011. The training material will be posted on the website and the intent is to post recorded webinars. The Standards Committee also developed a presentation that describes the magnitude and scope of standards activities that will also be posted online.

The Standards Committee is continuing its work on revising its Manual of Procedures and creating a Reference Manual for the Standards Committee and Project Committees. The Standards Committee plans to submit them for approval by Montreal.

The Standards Committee and Board of Directors approved the following new project: Standard 206P, *Method of Test for Rating of Multi-Purpose Residential Heat Pumps for Space Conditioning Water Heating and Dehumidification.*

The Standards Committee, Technology Council and Board of Directors approved co-sponsoring the development of BSR/SMACNA 02-201x, *HVAC Total System Air Leakage Manual*, with SMACNA being the lead organization.

SSPC 62.1, *Ventilation for Acceptable Indoor Air Quality*, the 2010 User's Manual is available for purchase in the ASHRAE bookstore.

Standard 90.1-2010, *Energy Standard for Buildings Except Low-Rise Residential Buildings, the* 90.1-2010 User's Manual is also now available for purchase.

SPC 201, *Facility Smart Grid Information Model*, has been meeting regularly in order to meet its goal of submitting a draft for public review in April 2011. The key results of the Las Vegas meeting were:

- 1) completion and acceptance of the initial set of work assignments and establishing a common understanding of their content and significance,
- 2) adoption of software tools to enable collaborative development of a Unified Modeling Language (UML) model that will be a formal machine readable version of the information model,
- 3) the adoption of a high level framework for the structure of the information model, and
- 4) the creation of four new rapid development teams, each tasked with creating a UML model for one of the framework components by the end of February.

The vision for moving forward is for the rapid development teams to meet face-to-face for approximately two days to develop their portion of the model. An additional face-to-face meeting of representatives from all of these groups will be held in order to combine the results and make necessary adjustments for consistency. At this stage, expected by the end of February, the committee will have a straw man UML model that represents the draft standard. It will be presented to the SPC and refinements will be made as a result of the discussions. This refined UML model will be used to draft the proposed standard. The committee expects to have a draft ready for public review in April.

H. Michael Newman, StdC Chair

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Technical Activities Committee (TAC)

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More of the same from TAC? Could be...but no. There is a new committee called the Multidisciplinary Task Group or MTG.

An MTG is a committee formed to address key issues for ASHRAE. Previously, the Board of Directors and Technology Council created special groups to accomplish this task. The MTG will operate under the newly revised Technical Committee/Task Group/Multidisciplinary Task Group and Technical Resource Group Manual of Procedures (TC/TG/MTG & TRG MOP). This document provides a structure and guidelines for the new MTG committees as they are constituted. As of July 1, 2010, there were ten TC/TG/MTG & TRG Sections, 1 through 10. As of the Winter Meeting in Las Vegas, there are now eleven TC/TG/MTG & TRG Sections. The TAC Special Activities Coordinator is the MTG Section Head.

A MTG is initiated when the Society determines the need to address key issues that encompass the expertise from multiple TC Sections (at least two Sections and potentially more). The Technical Activity Committee (TAC) will be asked to form a committee with a defined scope encompassing these key issues. The TAC Chair will appoint the new MTG Chair, after consultation with the TAC Special Activities Coordinator and Technology Council Chair. The membership of the MTG will be determined by the new Chair and the identified TCs. Each participating TC will identify a Voting Member and alternate Members to be on the MTG. Each TC may only have one Voting Member but there is no limit to the number of alternate Members from each TC. It also is possible that the MTG may involve non-TC groups and each of these non-TC groups may add a Voting Member and alternate members. The appointment to a MTG has been established as a maximum of four-1 year terms. The MTG Chair will serve for two years with the potential for a third year, if so deemed for the good of the

Society.

So what can an MTG do? A MTG is expected to have specific defined responsibilities for Handbook, Program, Publications, Research and Standards. All pertaining to issues defined in their scope.

- The responsibilities of a MTG may include review of a Handbook chapter; the TC/TG/TRGs are responsible for content.
- They may provide support for TC/TG/TRG Programs for the committees that comprise the MTG.
- MTGs can create publications or support for TC/TG/TRG Journal articles and other Series publications.
- Research will generally be done through the TC/TG/TRGs that are included in the MTG.
- A MTG may request and support the need for a standard through the Standards Committee.

A MTG is expected to meet four times a year to conduct their business, just before and after the Annual and the Winter meetings. These meetings will occur by way of conference calls and/or web meetings. The timing of the meetings is intended to allow the MTG members to attend the meetings of their respective TC/TG/TRG and to report MTG activities.

A MTG is expected to report progress toward the goals of their defined scope to their Section Head at each Annual meeting. TAC will review their progress report and determine to continue or discontinue the MTG for the next year.

The operation of an MTG is similar to that of the TC/TG/TRG. The characteristics of the roster are different in order to include all TCs or other non-TC group or groups. The MTG will have a web site within the ASHRAE web site. The MTG roster update will occur at the same time as TC/TG/TRG roster update. One difference from the TC/TG/TRG is that a MTG voting member may designate an alternate member from his represented committee as his/her proxy in the event he/she cannot attend the MTG meeting. This is due to the restriction of only one voting member per committee that comprises the MTG.

The MTG is new, but the concept of a specialized committee is not new. The Society has appointed special committees in the past to address key issues. The difference is that now these special committees will be a MTG under TAC administration with guidelines and rules for operation included in the Technical Committee/Task Group /Multidisciplinary Task Group & Technical Resource Group Manual of Procedures.

ASHRAE President Lynn Bellenger has as an objective to increase the communication between TCs and membership in general. Networking outside one's own expertise often initiates new thoughts among those involved. The MTG is another way to enhance the networking among the many areas of expertise within ASHRAE.

And finally, as stated before, TAC is available to assist committees when issues arise. Contact your TAC Section Head whenever the need arises. It is TAC's goal to help you.

Charles C. Wilkin, TAC Chair

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