

ASHRAE Technical Committee 4.3:

Ventilation Requirements & Infiltration

2019 Winter Meeting

DRAFT Meeting Minutes

Monday January 14, 2019, 4:15 pm-6:30 pm
GWCC A301

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Meeting Minutes

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1. COMMITTEE AND MEETING INFORMATION

Subcommittee Meetings:

Research: During Main Meeting

Program: During Main Meeting

Handbook: During Main Meeting

Scope: TC 4.3 is concerned with ventilation requirements and the analysis of infiltration, airflow around buildings, and exhaust re-entry, including their integration with indoor air quality and energy calculations for building and HVAC system design and operation.

TC Web Site: <https://tc0403.ashraetcs.org/>

2. CALL TO ORDER

Voting Members				
	Name	Position	Company	Roll Off June 30
1	Martin Stangl	Chair	RWDI	2020
2	Nathan Ho	Vice-chair	P2S Engineering	2020
3	Jordan D Clark	Secretary	Ohio State	2021
4	Steve Taylor	Research	Taylor Engineering	2021
5	Ed Light	Member	Building Dynamics	2019
6	Mini Malhotra	Program / Membership	Oak Ridge National Laboratory	2019
7	Brian Rock	Handbook	The University of Kansas	2022
Non-Voting Officers				
	Steve Duda	Honors	Ross & Baruzzini, Inc.	-
	Steven Emmerich	Standards	NIST	-
	Xia Fang	Webmaster	McKinstry	-

Quorum>1/2 all VM, excluding NQM; super majority >=2/3 VM present; simple majority>1/2 VM present

3. APPROVE AGENDA

Rock moved, Taylor second, 6-0-1

4. APPROVE MINUTES FROM PREVIOUS MEETING

Taylor moved, Rock second, 6-0-1

5. ANNOUNCEMENTS

a. Guy Frankenfeld, Handbook Liaison

- 1) Should have assigned authors. Right on schedule.
- 2) 2019 is heavy work year-writing revisions for review.
- 3) Can contact Guy with any questions, e.g. authoring portal, etc.
- 4) Need to use Internet Explorer to make changes

- b. Dennis Wessel, Section Head
 - 1) Work on roster updates for July 1 start
 - 2) Provisional corresponding members will drop off after 2 years- move to voting, corresponding if desired
 - 3) TAC updated MOP in December 2018
 - 4) Seminars and forums for KC due by February 8, 2019
 - 5) Proposed TC/TWG reorganization distributed for review, TAC looking for comments- Stangl will consolidate comments from TC by Wednesday
- c. Stangl: Commitment to the ASHRAE Code of Ethics:
In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests. (See full Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>.)”
- d. Stangl:
 - 1) Residential Building Committee is interested in co-sponsoring research
 - 2) Encouraged to use ASHRAE aliases rather than personal/work emails
 - 3) Reminder to maintain website. Looking for a volunteer for webmaster
 - 4) YEA looking for help from TC’s to integrate young members
 - 5) There is extended abstract option for Annual 2019 conference in KC

6. LIAISON REPORTS

- a. Conferences and Expositions Committee (CEC).
 - 1) Not present
- b. Handbook Committee (Harris Sheinman).
 - 1) Not present
- c. Professional Development Committee (PDC) – (Donald Brandt).
 - 1) Not present
- d. Special Publications (Francis Mills).
 - 1) Not present
- e. Environmental Health Committee (Josephine Lau).
 - 1) EHC is revising conversation around what is healthy air
 - 2) Discussion: defining “good air” will be much more difficult than defining what is not healthy air. Practical hurdles will be substantial.
- f. Research liaison (RAC) Mike Pouchak
 - 1) Keep research liaison aware of RTARs and work statements

7. SUBCOMMITTEE REPORTS

a. Research (Steve Taylor)

- 1) Several WS's approved
- 2) New Innovation award being offered for innovative ideas

Name	Project	PMS	Status
RP-1747	Implementation of RP-1547 CO ₂ -based Demand Controlled Ventilation for Multiple Zone HVAC Systems in Direct Digital Control Systems	Dennis Stanke (chair), John Murphy Raj Daswani Heejin Cho	Final report submitted, complete

RP - 1819	RP-1547 follow-up for systems with multiple recirculation paths	Steve Taylor /Josephine Lau	PMS meeting tomorrow
RP- 1823	Improved Exhaust-to-Intake Dilution (Concentration) Calculations	Steve Taylor Iain Walker Brian Rock	Will kickoff after meeting.

Name	Project	Champion	Status
Work Statement (WS)			
WS-1730	Pressure Coefficients and Pressure Drop for Standard Venting Strategies and Components in Residential Attic Spaces	TC 4.4 Anthony Fontanini	Have not heard. Likely beyond 5-year deadline and likely has been dropped
WS-1835	Characterizing the Performance of Entrained Flow Stacks	Brad Cochran	Changes were made in response to TC 5.1 (fans) comments. Glossary added. Taylor made motion to co-sponsor, Rock second Passed 6-0-0

Unsolicited Research Proposal (URP)

URP-1853	Building on an Existing Residential Ventilation Project: Brushless Permanent Magnet (BPM) Motor Change-Outs, Pollutant Emissions Characterizations, and Testing Multi-zone Ventilation System effectiveness	TC 4.3 Steve Taylor	Steve will provide comments and rejection of co-sponsorship
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Research Topic Acceptance Request (RTAR)

RTAR-1877	Outdoor ozone in naturally ventilated buildings	TC 4.3 Jordan Clark	Number assigned, with RAC
RTAR-1878	Outdoor particulate matter penetration and indoor PM removal rates in naturally ventilated commercial buildings	TC 4.3 Jordan Clark	Number assigned, with RAC
RTAR-???	Low-cost indoor pollutant sensor performance metrics for data-driven control of ventilation in smart buildings	TC 4.3 Jordan Clark	Wait for feedback from other TC's Walker suggested coordinating with Building America team working on similar work. Clark will follow up. Add specific pollutants.

Multidisciplinary Task Group (MTG)

MTG	Idea of MTG around VOCs and VOC mixtures and what constitutes air quality.	Ed Light	TRG 4 will determine how to proceed and Light will give update
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New Ideas

New	Infiltration vs. Pressurization impact with ERVs	Josephine Lau	Lau working with student to develop RTAR
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Name	Project	Champion	Status
New	Cost effectiveness of sealing between floors in multistory buildings to reduce stack effect, requirements to reduce multi-family internal partition leakage	Marianne Tushi, Gren Yuill, from University of Toronto	Tushi using new investigator award to pursue this. Stangl will email for update
New	Current mix of cars (electric/hybrid/IC) effects on garage ventilation rates	John Carter	Lots of support in room for idea. RTAR to be drawn up
New	Understanding formaldehyde generation rates	Nathan Ho	Initiated by 62.1. Ho will reach out to 62.1 research subcommittee to define 4.3's role LBNL doing similar work Walker will send previous proposal as outline for commercial buildings RTAR
Co-sponsor?	Ceiling fans RTAR initiated by 4.10 asking for co-sponsorship	Shichao Liu	Liu Will send RTAR to Taylor
On Hold or Inactive			
Hold	Is CO2 a pollutant or an indicator?	Steve Taylor	On hold. Will let existing research mature/evolve

5) Regular deadlines: March 1 (for spring RAC meeting), May 15 (for June meeting), August 15 (for fall RAC meeting), December 15 (for January meeting)

b. Program (Mini Malhotra)

- 1) Atlanta:
1 seminar yesterday on RP 1747
- 2) KC: 9 Tracks
 - a) Deadline for program submission is Feb 8
- 3) New program ideas

City	Title	Type	Chair/Speakers
Atlanta	Results of RP-1747	Seminar	Steve Taylor
??	Where has my air been?	Seminar	John Carter, Martin Stangl Waiting for good track to submit to
??	62.2 update	Seminar	Iain Walker Waiting for 2019 new version of 62.2
??	Assessment of VOC mixtures	Workshop	Ed Light (with MTG)
??	Controlling pollutant sources in residential buildings	Seminar 62.2 Co-sponsor	Steve Emmerich
??	Computational modeling of airflow around buildings	Seminar	John Carter, Ted Stathopoulos, Brad Cochran
KC	Sensors for control of ventilation and air cleaning	Seminar	Jordan Clark, LBNL?, 2.3?

c. Handbook (Brian Rock)

1) Chapter status

Volume	Chapter	Lead	Status
2021 Fundamentals	Chapter 16 Ventilation and Infiltration	Jordan Clark	Revisions begun Please send comments and revisions
2021 Fundamentals	Chapter 24 Airflow Around Buildings	Ted Stathopoulos	Revision process begun Please send comments and revisions
Applications	Chapter 45 Building Air Intake and Exhaust Design	Jason Urso	Revision approved, submitted to HQ

2) Base files: <https://www.ashrae.org/resources--publications/ashrae-handbook-central>

d. Standards

1) TC 4.3 Cognizant

a) 62.1 Ventilation for Acceptable Indoor Air Quality (Nathan Ho)

- (1) Draft addendum out for review updating ventilation effectiveness
- (2) Addendum around maximum dewpoint

b) 62.2 Ventilation for Acceptable IAQ in Low-Rise Residential Buildings (Iain Walker)

- (1) Looking at better filtration requirements
- (2) Looking at diversifying balanced/exhaust requirements
- (3) Looking at requiring ventilation be *on*
- (4) Successful appeal for unvented heaters

2) Others Standards of Interest

a) 90.1 (Steve Emmerich)

- (1) Passed addendum to require minimum VAV flows use simplified approach in 62.1 VRP

e. Honors (Steve Duda)

1) See attached report in Appendix A

f. Webmaster

- 1) Consider uploading ourselves
- 2) Consider hosting a Basecamp site for research projects

g. Membership (Mini Malhotra)

1) No update

8. NEW BUSINESS

- a. Discussion of proposed reorganization (see Appendix B)-members to send Stangl comments

9. ADJOURN

- a. Time: 6:36pm

Appendix A: Attendance Form

Appendix B: TC Chair Breakfast Notes

AGENDA
SECTION TC/TG/TRG CHAIR'S BREAKFAST MEETING
2019 Winter Meeting
Atlanta, GA

Sunday, January 13th

6:30 A.M. – 8:00 A.M. EST

OMNI Hotel – ALL Section meetings located in North Tower of Omni

Section 1, Grand Ballroom C, M4 Floor
Section 3 Willow Room, M4 Floor
Section 5, Redwood Room, M1 Floor
Section 7, Cottonwood B, M1 Floor
Section 9, Dogwood A Room, M1 Floor
Section MTG, Juniper Room, M2 Floor

Section 2, Magnolia Room, M2 Floor
Section 4, Cypress Room, M2 Floor
Section 6, Grand Ballroom B, M4 Floor
Section 8, Dogwood B Room, M1 Floor
Section 10, Sycamore Room, M2 Floor

- I. CALL TO ORDER
- II. ROLL CALL AND INTRODUCTIONS (5 minutes)
- III. ADDITIONS AND/OR CHANGES TO THE AGENDA (5 minutes)
- IV. REVIEW ANY SPECIAL ASSIGNMENTS, ACTION ITEMS FROM LAST MEETING, AND NEW ISSUES (10 minutes).
New Assignments:
A. **To be determined**
- V. DISTRIBUTE WRITTEN INFORMATION AND REQUESTS FROM SOCIETY LIAISONS TO TC/TG/TRG CHAIRS (30 minutes).

Additional Potential Announcements/Reminders:

A. NEW!

- 1. 2018-2019 George B. Hightower Award Recipient – David Moss – TC 9.9
- 2. 2018-2019 Service to ASHRAE Research Award Recipient – Jensen Zhang – TCs 2.3, 4.3, and 4.10
- 3. Discuss if TGs, TRGs, and MTGs in section will continue in 19-20 Society Year
- 4. 19-20 Roster Update process & Schedule
- 5. MTGs that have been formed since Houston Meeting – MTG.HWBE (Health and Wellness in the Built Environment)
- 6. New Resilience & Security TC formed
- 7. New version of TC MOP (Manual of Procedures) has been posted the Technical Committee page on the website under the heading *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs*
- 8. How to Import Your TC Roster Information into MS-Outlook
- 9. Fall 2018 Basecamp webinar feedback, if any?
- 10. Residential Building Committee (RBC) interested in co-sponsoring related TC research.

B. AT THIS MEETING

- 1. On-Site Training Options – TC Program Subc. Chair and Research Subc. Chair Training
- 2. Location of Section Head Mailboxes & Free Wi-Fi Access at this Society Meeting
- 3. Name Badges

C. UPCOMING DEADLINES

- 1. TC Activity Forms for the Atlanta Meeting are Due to Section Heads before Wednesday, 1/16/19
- 2. Seminar and Forum proposals for Kansas City are due by Friday, February 8, 2019
- 3. Remote Participation Meeting Requests for 2019 Annual meeting – Kansas City are due by **April 19th, 2019**

D. REMINDERS

- 1. 2018-2019 Rosters Access & Distribution
- 2. 18-19 E-mail Position Alias List Available
- 3. Useful TC/TG/TRG/MTG Chair Information and forms on ASHRAE Website
- 4. Request for each TC to review ASHRAE Code of Ethics at start of TC meeting

5. Make Special Effort to Welcome New Members and Visitors (Potential Members) to TC Meeting
6. Option for TC Subcommittee Meetings via Conference Calls and Web Meetings
7. Is your TC Website Up-to-date? – Houston minutes posted? – Atlanta agenda posted?
8. 18-19 TC Master Calendar – Now Available through Google

E. RECENT ANNOUNCEMENTS

1. CEC's Standing Request for Future Society Meeting Program Track Suggestions
2. CEC Seeks TC Volunteers willing to Support Content Development and Quality Control for Society Technical Program at Society Meetings
3. The Professional Development Committee (PDC) is seeking ideas for new ASHRAE Learning Institute (ALI) courses

F. CURRENT & UPCOMING ASHRAE CONFERENCE PROGRAMS

1. Program Focus of Atlanta Meeting
2. Kansas City Meeting – June 22 – 26, 2019
3. Orlando Meeting – February 1 – 5, 2020

G. OTHER UPCOMING WORKSHOPS AND CONFERENCES

1. TBD

VIII. REMARKS FROM SOCIETY LIAISONS TO TC/TG/TRG CHAIRS

Liaison members from Research Administration, ASHRAE Program, Handbook, Standards, and other standing committees will have an opportunity to describe their committee activities that relate to the TC/TG/TRG functions, if time permits. Written announcements must be provided as a minimum by liaisons in order to have an opportunity to speak at this meeting.

ADJOURN

Note: This agenda will be discussed and finalized during the full TAC meeting in Atlanta. This draft of the agenda is only intended to promote thinking prior to and discussion during that meeting.

**Announcements and Reminders for TC/TG/TRG & MTG Chairs
ATLANTA 2019**

A. NEW!

1. 2018-2019 George B. Hightower Technical Achievement Award Recipient – David Moss, TC 9.9

Mr. David Moss contributions to ASHRAE & TC 9.9 in the past four years is impressive and includes the following: Lead author and technical editor of the 2016 ASHRAE Datacom Book “IT Equipment Design Impact on data Center Solutions”, Book #13. Major contributor to three other Datacom Book Series Books (Book #1 4th edition, Book #13 and Book #14) Seminar #5 presenter at 2014 annual meeting. Seminar # 42 presenter in 2017 at winter meeting. Led the ASHRAE IT subcommittee team effort in 2016 to reverse the change to IEC 62368-1 standard. David’s willingness to take on hard tasks for the TC and ASHRAE makes him a well-qualified recipient for this award.

2. 2018-2019 Service to ASHRAE Research Award - Jensen (Jianshun) Zhang TC 8.6 in the last
Prof. Jensen Zhang is a valued member of the ASHRAE research community. He has helped to write many RTARs and several WS, as well as having been the PI for projects. He brings many ideas and much enthusiasm to the table. In the last few years, just in TC 2.3, he has worked on RTAR-1846 *Real Time Small sensors* and proposed RTARs on a reactive air cleaner performance test method for VOC levels, the role of gas filtration improving IAQ in residences, and corrosion in data centers. Often the originally proposed RTAR doesn’t end up being submitted, but the discussions of ideas feeds into other work that the committee submits. He also contributes to the ASHRAE Research Program by sending references to other groups to help with their RTAR/WS.

3. Discuss and confirm which TGs, TRGs, and MTGs in section will continue in 19-20 Society Year or merge or disband
TBD

4. 19-20 Roster Update Process & Schedule

By now, each TC Chair should have received an e-mail from ASHRAE Staff (Tara Thomas), containing a unique link to an online workbook for your particular TC that will allow you to update membership and roster assignments in order to create your SY19-20 roster. Please make sure that you received this e-mail and that the completed workbook is submitted on or before Tuesday night, January 15th, of the Winter Meeting. A recorded training presentation on how to use this workbook is posted on our website at <https://www.ashrae.org/technical-resources/technical-committees/tc-training-and-presentations>. On-site training will not be available at the winter meeting.

5. MTGs that have been formed since Houston Meeting – MTG.HWBE (Health and Wellness in the Built Environment)
Scope: MTG.HWBE will coordinate TC/TG/TRG technical activities related to enhanced health and wellness of the occupants in the built environment. The focus of the MTG will be to help to foster and expand internal and external organizational partnerships in this subject area, particularly with organizations developing green building rating systems (e.g., ASHRAE bEQ, LEED; WELL, Living Building Challenge; RESET, etc.) government agencies and research institutes. The objective of this coordination is to strengthen and improve the development and utility of these green building rating systems, to increase ASHRAE’s knowledge and expertise in

this emerging field, and to become more effective in disseminating the results of research and practice in this field to ASHRAE members and others.

MTG.HWBE will bring together expertise from various ASHRAE groups (TC 1.12, TC 2.1, STD 55, EHC, STD 189, SSPC 62.1, SSPC 62.2 and others) and from other non-ASHRAE organizations (AIA, CDC, Google, GSA, Harvard CCHGE, IAQA, IEQ-GA, ILFI, ISHRAE, IWBI, NIBS, USGBC,) to work in close collaboration to achieve the following objectives:

- ✓ aggregate existing and newly issued scholarly and non-scholarly literature related to enhanced health and wellness in the built environment;
- ✓ ensure that research results and other developments are integrated into existing ASHRAE publications such as handbooks, guidelines, guides and standards;
- ✓ develop and maintain technical online resources on ASHRAE's website regarding enhanced health and wellness in the built environment;
- ✓ provide opportunities for new, potentially co-funded, research and development on how to measure the tangible effects of the built environment on the enhanced health and wellness of the building's occupants; and
- ✓ Communicate the tangible and non-tangible benefits of applying building enhanced health and wellness criteria and requirements to ASHRAE's current design, construction and operational and maintenance practices.

Other TCs GPCs, and SPCs may also now wish to participate in this MTG with a Voting Representative and Alternate(s) given its scope and charge. If so, the MTG will be meeting as follows at the 2019 winter meeting in Atlanta: Tues. (1/15) 12 pm to 2 pm Walnut (M3, North), Omni.

6. New TC Formed

Title: TC 2.10 (Resilience and Security) – NEW!

Scope: TC 2.10 Resilience and Security is concerned with fundamental scientific and engineering design principles for the resilience of the built environments subjected to extraordinary events including mitigating consequential damages, remediation, and recovery.

TG2 HVAC Security requested and was approved to become TC 2.10. Jason DeGraw is chair of this committee.

7. New TC MOP (Manual of Procedures) issued in December 2018

TAC has revised the TC MOP to address a couple issues and the new TC MOP can be found on the ASHRAE website www.ashrae.org/TCs under the heading *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs*.

8. How to Import Your TC Roster Information into MS-Outlook

Detailed instructions on how to import your TC roster information into MS-Outlook has been created and an e-mail announcement will be issued to all TC chairs, vice chairs, and secretaries once these instructions and the restructured TC MOP are posted to the TC page of the website (www.ashrae.org/TCs)

9. TAC and ECC conducted a training webinar for TCs on Dec. 7, 2018 – Any Feedback?

An introductory training webinar on Basecamp was conducted for TCs this past fall. If you would like to review this webinar and the supporting documents, please go to the following webpage on the ASHRAE website and scroll down to the **Basecamp** heading:

<https://www.ashrae.org/technical-resources/technical-committees/tc-training-and-presentations>

If you have any feedback for improvement, please pass it on to MORTS@ashrae.net

10. Opportunity to Team-up with the Residential Building Committee on Research Projects

The Residential Building Committee (RBC) is interested in learning about potential research activities within or closely related to its scope. (See below) If your TC, TG, MTG, etc. is working on an RTAR or work statement that fits the scope of RBC, please let us know. If it proves to be of mutual interest, RBC would like to be a co-sponsor. Research requests supported by multiple committees and/or standing committees usually earn preference due to the broader support.

Excerpt from Residential Building Committee Scope:

This committee shall be responsible for identifying major residential trends impacting the practice of HVAC&R, and making recommendations on new activities and policies in response to these trends. In addition, this committee shall serve as a resource to the Society on activities and issues that relate to residential impacts of building technologies including but not limited to ventilation, and thermal organizations that focus on residential buildings.

Please send a copy of the RTAR or Work Statement to RBC Staff Liaison Lilas Pratt:

lp Pratt@ashrae.org

11. Distribution of TC minutes changed in TC MOP

The TC MOP and *TC/TG/MTG/TRG Minutes Cover Sheet* form have both been updated and you are no longer required to send the TAC chair a copy of your minutes after each meeting. The new minutes cover sheet can be found on the ASHRAE website www.ashrae.org/TCs under the headings *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs – Routine Forms for TC/TG/MTGs/TRGs*.

12. Basecamp Information from ECC

More and more TCs and standing committees are making use of ASHRAE's subscription to Basecamp3 to better organize, store, and distribute online committee files that are needed for their meetings through a dedicated committee Basecamp site. If you would like to learn more about Basecamp and how to request a site for your particular committee, please go to the Electronic Communications Committee (ECC) web page: (<https://www.ashrae.org/technical-resources/technical-committees/tc-training-and-presentations>) and scroll down to the section titled *Basecamp*

B. AT THIS MEETING

1. On-Site Training Options

i. **RAC's Research Subcommittee Chair's Breakfast**

Monday, January 14nd, 6:30 AM – 9:30 AM in Grand Ballroom D2/E, M4 Floor, North Tower, Omni Hotel. Please encourage your Research Subcommittee Chair or another representative from the TC to attend this meeting so that your RAC Research Liaison (RL) can get an update on the TC's research activities and so that your RL can help any resolve issues & questions that the TC may have concerning their research program. **The training portion of this meeting will include a trivia test on the *Research Manual*.**

ii. **TC Program Subcommittee Chair Training in Atlanta**

Tuesday, January 15th, 11:15 AM – Noon, A409 Room, 4th Floor, Bldg. A, Georgia World Congress Center (GWCC). *Don't complain about the meeting program and your TC's submissions if you have not been to training.*

A few things you might learn in training are as follows:

- Incomplete program submissions is the biggest reason for rejection now. All information is needed up front for CEC selection process.
- A packaged session on a similar topic is the best way to greatly improve your chances for acceptance.
- There is no difference in how CEC handles 60 and 90 minute program slots. 60 minute slots are just as good as 90 minute slots if complete.

2. Location of Section Head Mailboxes & Free Wi-Fi Access at this Society meeting

Mailboxes are located just outside ASHRAE Headquarters Office (Maple Room C & B – Atrium Terrace (AT floor) – Omni Hotel).

Also, Internet access and computers for e-mail are available in the Cyber Café located in the registration area during operating hours. Please be considerate to others and limit your usage to five minutes.

Wireless internet will be available in all meeting rooms at the Omni Hotel, and Georgia World Congress Center (GWCC). ASHRAE will be working with the internet provider to manage the bandwidth so that member expectations of accessibility and speed are fulfilled. We would like to request that everyone limit their usage to functions that do not use excessive bandwidth. Applications such as Facebook, YouTube, streaming video, etc. use excessive bandwidth.

Username: ASHRAE2019

Password: atlanta19

Username & passwords are case sensitive

3. Name Badges

As offered in the past, members of TCs who are not registered for the Conference and plan to only attend TC meetings may receive a free, plain white name badge. The purpose of these badges is for TC members not registered for the Conference to be able to identify one another in meetings.

To receive your badge, please go to the ASHRAE Registration desk located in the International Ballroom (A-D) at the Omni Hotel in the North Tower on level M2 and look for the sign for “TC Badges.” Please identify yourself as someone only attending committee meetings, not registered for the Conference, who would like a white name badge. An ASHRAE staff person will create a badge for you that includes your name, company name and city, state and country (if outside the U.S.). The badge will not have a QR code and will not allow you into the Technical Program.

However, if you’d like to register for the entire Conference you can do so in advance or on-site. We realize your time is limited, one-day registrations (\$240 for Members) are available as well as one-session registrations (\$70). If you wish to register for one day of the Technical Program you or one session, you can do so at the ASHRAE Registration desk. The One-Day option gives you access to the Virtual Conference which is viewable on-demand for 18 months. Questions? Contact meetings@ashrae.org.

C. UPCOMING DEADLINES

1. TC Activity Forms for the Atlanta Meeting are due to Your Section Head before Wednesday, 1/16/19

TC/TG/TRG Activity Feedback Form (Excel) can be downloaded from the Technical Committee webpage under the “TC Forms and Documents” page - <https://www.ashrae.org/standards->

[research--technology/technical-committees/tc-forms-and-documents](#). Section heads can also provide an electronic copy of the form if requested.

2. Seminar and Forum proposals for Kansas City are due by Friday, February 8th, 2019.

Please visit the following site to submit your proposal:

<https://ashraem.confex.com/ashraem/s19/cfp.cgi>

For more information, go to: <https://www.ashrae.org/conferences/annual-conference>

3. 2019 RPM (Remote Participation Meetings) Request for Kansas City Meeting

ASHRAE has streamlined the process for requesting RPM meetings moving forward, which will allow us to confirm meeting information earlier in advance of the actual meeting dates.

The updated procedures are as follows:

- ALL committees that want to be considered for an RPM capable meeting in Kansas City next June must turn in an *ASHRAE Meeting Room Request Form* for Kansas City to the ASHRAE Meetings section.
- The request should include the reasons why you are requesting RPM meeting capability.
- RPM meeting requests for the upcoming Kansas City Annual meeting should be submitted by **Friday, April 9th or sooner**
- Confirmation emails (verifying the requests) will be sent out in May 2019
- Requests received after the above date may not be accommodated due to high and growing demand for this service.

D. REMINDERS

1. 18-19 Rosters Access & Distribution - Remember, the current 2018-2019 roster for your TC, TG or MTG is in effect until after the June meeting this year – through Friday, June 30th.

By now, each TC, TG and MTG chair should have received a PDF & MS-Excel file of their new 2018-2019 roster from their Section Head or staff for distribution to the committee. In addition, each member can view all of their ASHRAE committee rosters on the ASHRAE Website. Go to www.ashrae.org <http://www.ashrae.org>, click on the "Membership" tab in the header, then click on "My Participation" text in the "My ASHRAE" column, and scroll down and click on the "Manage" button. Log in with your username and password and then Click on "Committees" in left-hand side bar to view all your committee rosters. Make sure everyone on your committee also knows how to access the roster.

The Provisional Corresponding Member (PCM) position is a relatively new position on TC/TG/TRG rosters. This position allows potential new members to be added by staff to the committee roster any time a request for membership is made by an individual. The position has a 2-year term on the committee. Staff will notify the chair and reissue a new roster to the committee chair any time a provisional member is added. The TC/TG/TRG chair has the option each year during the regular roster update process to convert provisional CMs that have been active participants on the committee the past year into regular CMs or voting members or drop them. If no action is taken, they will time expire from the roster and be removed by staff.

2. TC 18-19 E-mail Position Aliases list now Available

The 18-19 E-mail Alias list with the position aliases positions of the Technical Committee management team (Chair, Vice Chair, Secretary, Standards Sub. Chair, Program Sub. Chair, Handbook Sub. Chair, and Webmaster) is posted on the ASHRAE website www.ashrae.org/TCs under the heading *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs*.

3. Useful TC/TG/TRG/MTG Chair Information and forms on ASHRAE website Information for TC/TG/TRG and MTG chairs can be found on the Technical Committee page of the ASHRAE website at the following link: <http://www.ashrae.org/tcs>

4. **Request for each TC to briefly review ASHRAE Code of Ethics at start of meeting** See the following link for the latest version of the ASHRAE Code of Ethics: <https://www.ashrae.org/about-ashrae/>
5. **Make a Special Effort to welcome new Members, and Visitors to TC meeting**
Potential new members for your committee have been encouraged to drop-by your meeting. As a result, please make a special effort to recognize and warmly welcome all visitors to your meeting – A TC can never have too many willing and able volunteers.
6. **Option for TC Subcommittee Meetings via Conference Calls and Web Meetings** More and more TCs are taking advantage of a new Society service that allows TCs to hold subcommittee meetings by phone and/or web. Many TCs are finding this to be a more efficient way for them to conduct subcommittee business and it also allows TC members that can't travel to meetings on a regular basis a way to still contribute to the TC. Such a change can also eliminate potential conflicts with the TC's program sessions at Society meetings. Please pass your conference call/web meeting/webinar requests on to the Manager of Research and Technical Services, Mike Vaughn, at mvaughn@ashrae.org or MORTS@ashrae.net
7. **Is Your Committee Website up to Date?**
If not, please ask your webmaster to at least post the latest minutes and the Atlanta meeting times and agenda. If your website has been neglected, add an action item for this meeting to appoint a responsible member of the TC/TG/TRG who will bring it back to life. The new TC website template has greatly simplified the duties of the TC webmaster and this form of communication is critical to the efficient operation of your committee, and for attracting new members.

The recent conversion to a new TC website platform highlighted a couple areas where a refresher of the ASHRAE rules on website maintenance is warranted. First be aware that ASHRAE Products (i.e., handbook chapters, journal articles, final reports from research projects, etc.) cannot be published on your TC's website. It is very appropriate to post the title and scope of the product and then link the reader to the ASHRAE bookstore or other location on the ASHRAE site where the product may be purchased. Any possible exceptions to this rule must be sent through Mark Owen for review and approval (mowen@ashrae.org). The second issue involves timely posting of the draft minutes. Draft minutes (and final, approved minutes from the prior meeting) should be posted to your website (or otherwise distributed to the members) within 60 days after the meeting. Please ensure that your secretary and webmaster are aware of this deadline. To assist your secretary in understanding the procedures for taking and reporting minutes, a video has been developed and posted on the Technical Committees' Training page (<https://www.ashrae.org/technical-resources/technical-committees/tc-training-and-presentations>). On the same page, a video has also been posted for use by webmasters to learn about the procedures and schedule to maintain the new websites.
8. **TC 2018-2019 Master Calendar – Now Available through Google** - The Technical Committee Master Calendar is now available through Google. In order to access this calendar you need to have a Google account.

Once you log into your Google account, follow the instructions below:

To add a friend's calendar, just follow these steps:

- At the bottom of the calendar list on the left, click Add and select "Add a friend's calendar".
- Enter the appropriate email address (techservices1791@gmail.com) in the field provided, then click Add.

This calendar is public and will appear under 'Other Calendars' in the left column.

To set up Google Calendar Sync to your Outlook:

- Make sure you're using a supported operating system and Outlook version.
- Download Google Calendar Sync (version 0.9.3.6) at
- http://dl.google.com/googlecalendarsync/GoogleCalendarSync_Installer.exe
- Once a dialog box appears, click Save File. The downloaded file should open automatically. If it doesn't, manually open it from your browser's download window.
- Click OK to confirm that you're aware this is an executable file.
- Read through the Google Calendar Sync Terms of Service, and click I Agree.
- Follow through the Installation Options and click Install to finish the set-up process.

Once Google Calendar Sync is installed on your computer, the Google Calendar Sync Settings window will appear:

In the Settings window, enter your email address and password and select the Sync Option you prefer. Read about each Sync Option.

You'll also be able to set the time interval for syncing to occur. Please keep in mind that 10 minutes is the minimum time interval allowed.

After the initial set-up, you can access the Google Calendar Sync Settings window again by double-clicking the calendar icon in your Windows System Tray.

E. RECENT ANNOUNCEMENT

1. CEC's Standing Request for Future Society Meeting Program Track Suggestions

The Conferences and Expositions Committee (CEC) oversees ASHRAE's annual and winter conferences and other specialty conferences and expositions globally. The CEC continually works to improve the conference experience for all attendees. To help keep a "pulse" on the technical issues facing professionals in the HVAC&R marketplace, and to create meetings that reach all of ASHRAE's constituencies, the CEC seeks ideas for tracks for the Austin 2020 Annual meeting and annual and winter conferences beyond as well as topics for specialty conferences from TC members.

Please submit your suggestions to ASHRAE Staff member Tony Giometti (Giometti@ashrae.org). You can also add your track suggestion in the "Comment" section of the TC Activity form for the Atlanta meeting.

2. CEC Always Seeks TC Volunteers willing to Support Content Development and Quality Control for Society Technical Program at Society Meetings

Provide to your Section Head after each Society meeting a list of qualified volunteers from your TC that are potential Technical Session chairs and reviewers of session papers that are related to TC's scope for use by the Conferences & Expositions Committee (CEC) in developing technical content for future technical programs.

3. The Professional Development Committee (PDC) is seeking ideas for new ASHRAE Learning Institute (ALI) courses.

The Professional Development Committee (PDC) is actively seeking ideas for new ASHRAE Learning Institute (ALI) courses. We need practical courses of broad interest to be presented as face-to-face seminars or short courses, instructor-led online courses, and self-paced courses. Examples include courses with a focus on new technologies that need to be shared, fundamentals for engineers new to the discipline, standard applications that need explanation, and courses based on new design guides. Does your TC have a potential course idea?

F. CURRENT & UPCOMING ASHRAE CONFERENCE PROGRAMS

1. Atlanta Winter Conference – Jan. 12 – Jan. 16, 2019

Conference Website: <https://www.ashrae.org/conferences/winter-conference>

Conference Program Chair: Corey Metzger

Program Focus at Chicago Winter Conference

- i. Track 1: Systems and Equipment
- ii. Track 2: HVAC&R Fundamentals and Applications
- iii. Track 3: Refrigeration
- iv. Track 4: Construction, Operation, and Maintenance of High Performance Systems
- v. Track 5: Common System Issues and Misapplications
- vi. Track 6: The Convergence of Comfort, Indoor Air Quality, and Energy Efficiency
- vii. Track 7: Building Integrated Renewables and Natural Systems
- viii. Track 8: The Engineer's Role in Architecture

2. Kansas City Annual Conference - June 22 – June 26, 2019

Seminar and Forum proposals for Houston are due by **Friday, February 8th, 2019**. Conference

Website: <https://www.ashrae.org/conferences/annual-conference>

Conference Program Chair: Carrie Anne Monplaisir Email: cindym@tmmechanical.com

Program Focus at Kansas City Annual Conference

- i. Track 1: Systems & Equipment in the Built Environment
- ii. Track 2: Fundamentals & Applications
- iii. Track 3: Optimization in HVAC&R
- iv. Track 4: Commissioning New & Existing Buildings
- v. Track 5: Occupant Health & Safety
- vi. Track 6: Modeling Throughout the Building Life Cycle
- vii. Track 7: Professional Development
- viii. Track 8: Research Summit
- ix. Track 9: Radiant Heating & Cooling Mini-Track

G. OTHER UPCOMING WORKSHOPS, CONFERENCES AND EVENTS

1. 2019

- i. **Airvent - Indoor Air Quality, Ventilation and Energy Conservation in Buildings**– Feb. 13, 2019 – Moscow, RUSSIA - <http://events.abok.ru>
- ii. **51st AiCARR International Conference - The Human Dimension Of Building Energy Performance** – Feb. 20 to 22, 2019, Venice, ITALY - <http://www.aicarr.org/Pages/Convegni/CallForPapers.aspx>
- iii. **13th REHVA World Congress CLIMA 2019** – May 26 to 29, Bucharest, ROMANIA - <https://www.clima2019.org/congress>
- iv. **ICR 2019** – Aug. 24 to 30 – Montréal, CANADA
<http://icr2019.org/registration/>
- v. **5th International HVAC/R Congress** – Aug. 28 to 29 – Puerta de Oro, COLUMBIA
<https://acaire.org/congreso/>
- vi. **2019 ASHRAE Building Performance Analysis Conference** – Sep. 25 to 27, Denver, Colorado, USA
<https://www.ashrae.org/conferences/topical-conferences/2019-ashrae-building-performance-analysis-conference>
- vii. **ASHRAE 2019 Webcast** – The Future of Refrigerants: Unitary and VRF Systems – Apr. 17 & 18 – Register at <https://www.ashrae.org/professional-development/ashrae-webcast>

Appendix C: RAC Update

RAC UPDATE ATLANTA 2019

**John Shonder
Chair, RAC**

Proposal Updates

- 7 RTARs reviewed
 - 6 accepted with comments
 - 1 rejected
- 5 WS reviewed
 - 2 Conditionally accepted
 - 3 Returned to TC
- Reviewed 2 funded extension requests
- Reviewed contractor selection for one project

Awards Update



- Homer Adams award nominations
- IRG pre-proposals
- NIA Awards

Service to ASHRAE Research Award



- Jensen Zhang – TCs 2.3, 4.3, 4.10
- Award recognizes an individual for excellence in volunteer service to the area of Society research
- Nominated by TC/TG Chairs
- Deadline for new nominations is September 1, 2019

RESEARCH QUIZ

True or False?



- For projects co-sponsored by multiple TCs, the WS cover sheet must contain the vote tally of all sponsoring TCs

True or False?



- For projects co-sponsored by multiple TCs, the RTAR coversheet must contain the vote tally of all sponsoring TCs

TRUE

- This is very important, so that RAC can verify support for the topic

True or False?



- Once the TC has voted on an RTAR, they should have the Research Liaison review it

True or False?



- Once the TC has voted on an RTAR, they should have the Research Liaison review

FALSE

- The RL should review the RTAR *before* the TC vote, to identify any potential problems.

True or False?



- If an RTAR is “Accepted With Comments,” the TC should address the comments and then resubmit the RTAR to MORTS

True or False?



- If an RTAR is “Accepted With Comments,” the TC should address the comments and then resubmit the RTAR to MORTS

FALSE

- Once the Research Liaison has approved the revision, it is assumed to be accepted by RAC. Begin writing the Work Statement!

True or False?



- If a Work Statement is conditionally approved, the TC revises the WS and resubmits to MORTS

True or False?

- If a Work Statement is conditionally approved, the TC revises the WS and resubmits to MORTS

FALSE

- Conditionally approved means the Research Liaison has the authority to approve the WS after RAC's comments have been addressed

True or False?



- If a Work Statement is returned with comments, the TC should address the comments, produce a letter stating how the comments were addressed, and resubmit to MORTS (with cc to RL)

True or False?

- If a Work Statement is returned with comments, the TC should address the comments, produce a letter stating how the comments were addressed, and resubmit to MORTS (with cc to RL)

TRUE

- The letter is very important to the approval process

Research Manual



- Answers to all of these questions are in the Research Manual
- TCs – especially RTAR and WS authors and members of the Research Subcommittee – should be familiar with this document
- Available at <https://www.ashrae.org/technical-resources/research>

Reminders



- ASHRAE is encouraging more co-funding from outside organizations

PMS Training



- PMS ensures that ASHRAE research projects deliver promised results
- All new PMS members must take PMS training
- RAC will provide live PMS training (via Webinar) twice annually in fall and spring
- Spring date TBD

Process for Developing RAC Funded Special Publications

Christopher Wilkins
Chair, RAS

Background

- Approximately 10% of the research budget has been allocated towards the development of special publications (design guides and user manuals).
- Traditionally, RAC has used the same workflow process that is used for research projects to approve and fund these publications projects.
- This process was done largely independently from Publications Committee and the Editor, Special Publications (Cindy Michaels).
- RAC has examined our internal process, worked with Cindy and Publications Committee representatives, and developed some recommendations to improve the workflow process.

Objectives



- RAC felt it was important to engage Publications in the process of prioritizing and selecting publications projects for funding.
- RAC wanted to tailor our submission, review, and approval process and forms to better meet the needs of publications projects.
- RAC wants to make sure that any publication that is produced through this process and with research funds are the best technical quality and free of any commercialism or bias.
- In the end, the bottom line for RAC is to get the most bang for the buck for every ASHRAE dollar that is spent, as we do for research projects.

Process – Publication Topic Acceptance Request (PTAR)



Process – Publication Topic Acceptance Request (PTAR)



- We will use a new form – PTAR – since the process and criteria are different from the traditional one and it will help us track the publication funds separately
- TC fills out and submits a PTAR to the publications committee
- PTAR form asks the following information (similar to RTAR)
 - Summary
 - Background
 - Publication need
 - Target audience
 - Statement of why this needs to be a paid project vs volunteer effort
 - Funding level and time estimate

PTAR Review

- RAC review of PTAR is mainly administrative, since the issues of relevancy and alignment with strategic plan are done by the publications committee
- RAC will have three criteria:
 - Background – mainly to provide enough information so that we can understand the PTAR
 - Publication need – RAC will determine whether the case has been made that this publication is needed
 - Paid project vs. volunteer effort – RAC will determine whether or not it is appropriate to produce this document through a paid contractor
- If RAC approves the PTAR, the TC will proceed with a works statement

Work Statement for Publication(WSP)



- Work statement form for publications (WSP) will be different from the research project WS form because there is different criteria
- WSP form asks the following information
 - Summary
 - Background
 - Objectives
 - Publication need/Target audience
 - Proposed Table of Contents
 - Proposal Evaluation Criteria
 - Level of Effort
 - Milestones

WSP Review

- RAC will review the WSP in a similar fashion to the research project work statements
- Evaluation criteria will include:
 - State of the art
 - Audience/publication need
 - Bidders list
 - Proposed table of contents
 - Evaluation criteria
 - Time and cost estimate
 - Is it biddable?
- If approved, the WSP will go out for bid and will become a tentative publication project (TPP), and then a publication project (PP) as apposed to a research project

More to come

- I presented to full Publications Committee on Sunday. They are very supportive.
- Pub Comm is still working through what their process will be for PTAR approval and in general support of the process.
- RAC may post the new PTAR and WSP for use by RAC while Pub Comm is resolving their process.
- For now, continue to submit projects just as you always have.

Thank You!

- RAC Members
- Research Subcommittee Chairs
- PES and PMS members
- Mr. Michael Vaughn
- Steve Hammerling
- Ms. Donna Daniel



QUESTIONS

Appendix D: CEC Update

NOTES

An ASHRAE Conferences and Expositions Committee (CEC) Newsletter for TC Chairs, Program Subcommittee Chairs and Interested Parties SY 19 (January 2019)

NEW: “Extended Abstracts” for 2019 Annual Conference Research Summit due February 8

Conference	Upcoming Deadline	Workshops
2019 Annual, Kansas City June 23 – 27, 2019	Extended Abstracts and program proposals due February 8 ashrae.org/kansascity	<ul style="list-style-type: none"> 9 submitted 8 presented
ASHRAE Building Performance Analysis Conference, Denver September 25–27, 2019	Presentation proposals due March 15 ashrae.org/buildperform2019	Forums <ul style="list-style-type: none"> 3 submitted 3 presented
2020 Winter, Orlando February 1 – 5, 2020	Conference Paper Abstracts due March 18 ashrae.org/orlando	Debates <ul style="list-style-type: none"> 5 submitted 4 presented

Panels

- 5 submitted
- 1 scheduled

2019 Winter Conference, Atlanta

Thank you to all the TCs who helped with the review of the technical and conference papers, who submitted program proposals and who otherwise participated in the development of the conference!

Program Statistics for Atlanta

Conference Papers

- 156 conference paper abstracts submitted, 149 approved
- 70 conference papers presented
- 20 Conference Paper Sessions

Technical Papers

- 16 Technical papers received
- 12 Technical papers presented
- 4 Technical Paper Sessions

Seminars

- 84 submitted
- 71 presented

2019 Annual Conference, Kansas City

For the first time, ASHRAE is making available to authors an extended abstract option for the 2019 Annual Conference Research Summit track only. “Extended Abstracts accepted for the Research Summit could lead to publication in Science and Technology for the Built Environment, ASHRAE’s research journal,” said Carrie Anne Monplaisir, conference chair.

Accepted extended abstracts will be presented orally at the 2019 Annual Conference, published in ASHRAE Transactions and indexed in major search engines.

Extended Abstracts are due February 8, the same deadline as proposals for seminars, forums, panels, debates and workshops.

2020 Winter Conference, Orlando

The deadline for submitting a conference paper abstract and/or a technical paper is **March 18**. Please note, for this conference, the extended abstract paper option is not available. Decisions on conference paper abstracts will be sent by April 22. Papers for accepted abstracts only will be due July 8, 2019.

Tracks and Track Chairs

Track 1: HVAC&R Fundamentals and Applications

Maggie Moninski, maggie.moninski@gmail.com

Track 2: Systems and Equipment

Sonya Pouncy, sonya.pouncy@gmail.com

Track 3: Refrigeration and Refrigerants

Stephen Idem, sidem@ntech.edu

Track 4: Cutting Edge Approaches

Marianna Vallejo, marianna.vallejo@jacobs.com

Track 5: High Efficiency Design and Operation

Ryan MacGillivray, ryan.macgillivray@dwel.com

Track 6: Big Data and Smart Controls

Leticia De Oliveira Neves, leneves@gmail.com

Track 7: Ventilation, IAQ and Air Distribution Systems

Robert Cox, bob.cox@jacobs.com

Track 8: Standards, Guidelines and Codes

Lee Riback, lee.riback@gmail.com

Upcoming Topical Conferences

2019 ASHRAE Building Performance Analysis Conference

Denver, Colorado

September 25–27, 2019

ashrae.org/buildperform2019

Seventh International Conference on Energy Research and Development

co-organized by
Kuwait University and ASHRAE

Kuwait City, Kuwait

November 19–21, 2019

ashrae.org/kuwait

2019 Buildings XIV International Conference

co-organized by ASHRAE and ORNL

Clearwater Beach, Florida

December 9–12, 2019

ashrae.org/buildingsxiv

Future Annual and Winter Conferences

Annual 2019 – Kansas City, Missouri, June 22 – 26

Winter 2020 – Orlando, Florida, February 1 – 5

Annual 2020 – Austin, Texas, June 27 – July 1

Winter 2021 – Chicago, Illinois, January 23 – 27

Annual 2021 – Phoenix, Arizona, June 26 – 30

Winter 2022 – Las Vegas, Nevada, Jan. 29 – Feb. 2

Conferences and Expositions Committee

Kevin Marple – Chair

kmarple@benzco.com

Michael Collarin – Vice Chair

Michael.Collarin@parsons.com

Corey Metzger – Chair, 2019 Winter Conference

(Atlanta), corey.metzger@resourcece.com

Carrie Anne Monplaisir – Chair, 2019 Annual

Conference (Kansas City), carrie.monplaisir@gmail.com

Melanie Derby – Chair, 2020 Winter Conference

(Orlando), derbym@ksu.edu

Bing Liu – Chair, 2020 Annual Conference (Austin),

blui@neea.org

Joe Firrantello – Topical Conferences Subcommittee

Chair, j.firrantello@gmail.com

Conferences Staff

Tiffany Cox, Assistant Manager, Conference Programs

678-539-1137, tcx@ashrae.org

Chris Preyor, Conference Programs Assistant

678-539-1109, cpreyor@ashrae.org

Austin Brafford, Conference Programs Assistant

678-539-1121, abrafford@ashrae.org

Tony Giometti, CEC Staff Liaison and Sr. Manager,

Conference Programs 678-539-1155,

giometti@ashrae.org

Lizzy Seymour, ASHRAE Conference Services

Manager, 678-539-1219, lseymour@ashrae.org

Appendix E: Awards update



TC 4.03 Honors & Awards Report

2019 Winter Meeting, Atlanta

Deadlines that occur *before* the next meeting (June 2019 Kansas City) are listed in **red** below.

George B. Hightower Award:

- *Recognizes excellence in volunteer service in the area of Technical Committee, Technical Group, and Technical Research Group activities, excluding Research & Standards (which have separate awards).*
- TC 4.03 did not have a nominee last year. Nominations are due September 1 each year, and I would like to submit our strongest candidate each year. Desirable qualities include Seminar and Conference Paper programs, Handbook & Program subcommittee work including officer positions, and service as TC officer.

Service to ASHRAE Research Award:

- *Recognizes excellence in volunteer service in the area of Society research. Desirable qualities include authorship of RTARs and Work Statements, participation or chairing of multiple PMS and PES, and Research subcommittee work including Research Subcommittee Chair. This award is for a volunteer in support of Research, not a paid researcher and not a donor to ASHRAE Research.*
- TC 4.03 did not have a nominee last year. Nominations are due September 1 each year, and I would like to submit our strongest candidate each year.

ASHRAE Fellow:

- *Recognizes distinction in the arts relating to the sciences of heating, refrigeration, air conditioning or ventilation, or the allied arts and sciences, or in the teaching of major courses in said arts and sciences, or who by reason of invention, research, teaching, design, original work, or as an engineering executive on projects of unusual or important scope, has made substantial contribution to said arts and sciences, and has been in good standing as a full grade Member for at least ten (10) years is eligible for election to the grade of Fellow.*
- New nominations are due December 1 each year. Please help me identify suitable candidates from this TC, including yourself if you feel you are eligible.

Distinguished Service Award:

- *Recognizes members who have served ASHRAE faithfully as a member of committees or otherwise giving freely of his/her time and talent on behalf of the Society. Lifetime cumulative points-based system with a minimum of 15 points required (with at least 3 points in 3 different categories).*
- Two of our TC 4.03 members were nominated for this honor last year, and those nominations are working their way through the system. The Board of Directors reviews DSA nominations at this meeting, and assuming approval, the awards are presented at the Plenary of the 2019 Annual Conf. in Kansas City.
- The points tally sheet is available on the ASHRAE website or directly from me.
- **New nominations are due May 1 each year.** Self-nominations are permitted. Please help me identify additional suitable candidates from this TC, including yourself if you feel you are eligible and have not yet received this award. There is no quantity limit for nominees nor honorees.



Exceptional Service Award:

- *Recognizes members who have served the Society faithfully and with exemplary effort, far in excess of that required for the Distinguished Service Award. Lifetime cumulative points-based system with a minimum of 45 points required (with at least 7 points in 3 different categories).*
- The points tally sheet is available on the ASHRAE website or directly from me.
- **New nominations are due May 1 each year.** Self-nominations are permitted. Please help me identify additional suitable candidates from this TC, including yourself if you feel you are eligible and have not yet received this award.

Other Awards on my Radar: Send any suggested nominations for the following to Steve Duda.

- **ASHRAE Award for Distinguished Public Service.** *Recognizes ASHRAE members who have performed outstanding public service in their community, and in doing so, have helped to improve the public image of the engineer.* This is a competitive award, with a maximum of one chosen per year. Nominations are due December 1 each year.
- **Standards Achievement Award.** *Recognizes excellence in volunteer service for developing ASHRAE Standards and/or Guidelines.* This is a competitive award, with a maximum of one chosen per year. Nominations are due December 1 each year.
- **Andrew T. Boggs Service Award.** *Recognizes a past Exceptional Service Awardee for continued, unselfish, dedicated and distinguished service to the Society.* This is a competitive award, with a maximum of one chosen per year. To be eligible, one must already have won the Exceptional Service Award. **New nominations are due May 1 each year.**
- **Louise & Bill Holladay Distinguished Fellow Award.** *Recognizes a Fellow of the Society who continues preeminence in engineering or research.* This is a competitive award, with a maximum of one chosen per year. To be eligible, one must already be a Fellow of the Society. **New nominations are due May 1 each year.**
- **F. Paul Anderson Award.** *Honors a member for notable achievement, outstanding work or service in any field of the Society. This is ASHRAE's highest honor.* This is a competitive award, with a maximum of one chosen per year. New nominations are due December 1 each year.

Respectfully submitted by:

A handwritten signature in blue ink that reads "Stephen W. Duda".

Stephen W. Duda

TC 4.03 Honors & Awards Chair

January 3, 2019

Appendix E: TC/TWG Reorganization Plan



Shaping Tomorrow's Built Environment Today

1791 Tullie Circle NE ▪ Atlanta, Georgia 30329-2305 ▪ Tel 404-636-8400 ▪ Fax 404-321-5478 ▪ <http://www.ashrae.org>

January 13, 2019

TC/ TG/ MTG/ TRG Chairs & Vice Chairs,

We have heard from our membership that the current Functional Groups (FG - includes TCs, TGs, MTGs, and TRGs) structure is not working as efficiently or effectively as in the past. We need to determine how to be contributors and the driving force in our industry. From our recent membership survey, we identified the following issues:

- We are working in silos; too specific; need more global perspective
- Management of stagnant TCs and membership is lacking
- Takes too long to change things in TCs- members are getting discouraged
- We are not maintaining industry leadership
- We need to do a better job of sharing best practices

TAC owns these issues and we are working to address them. We have started to invest time and funds in technology/ forms, including BaseCamp, a new electronic roster tool, and a revised activity tracking form. In addition, a committee was formed a few months ago to look at reorganizing the FG structure. By taking on this reorganization, we hope to:

- Decrease the silo effect
- Increase collaboration for programs, research & handbook
- Increase meeting efficiency & increase the effectiveness of members' volunteer time

PROPOSED PLAN

There are over 110 FG meetings and 180 subcommittee meetings at every conference. Many of these meetings overlap each other, and/or run concurrently to the technical program, limiting the number of attendees that could attend and participate in the discussion & exchange of ideas.

We propose to re-form the existing FGs into about 30 new technical working groups (TWGs) based on similar scope & function, with merged attendance of between 75-125 members. The meetings would take place during a block schedule (see attachment), moving meetings into afternoon timeslots and utilizing technical program rooms (large rooms with AV). In these 2-hour slots, TWGs could present topical programs (to be included in the technical program), some business of interest to the group and subcommittee breakouts within their slot.

We now have an opportunity to direct the technical vision of the society as we will soon celebrate our 125th anniversary. We have presented a draft proposal to you and now we want your input and suggestions- talk amongst yourselves and feel free to talk to us. We are looking for your input on potential synergies with other functional groups, for example, if your FG were to reform with 1 or 2 other groups, which ones do you think most align with your current scope? Our goal is to discuss your questions and concerns in Atlanta and propose a working model for consideration in Kansas City and a rollout in Orlando (2020). Please direct your answers or inquiries to TAC through your individual Section Head or to Sarah Maston, the TWG Reorganization Chair. Thanks for all you do for your membership and ASHRAE!

Best Regards,

Sarah Maston, Chair (sarah@greenfootprintscx.com)

Victor Goldschmidt, TAC (creating2@earthlink.net)

Thom Justice, TAC Chair (justfilter@yahoo.com)

Tom Lawrence, TAC BOD ExO (lawrence@engr.uga.edu)

Barbara Minor, TAC (Barbara.H.Minor@chemours.com)

Larry Smith, TAC (LarryS@li-hvac.com)

Bill McQuade, Planning (William.F.Mcquade@jci.com)

Technical Program / Technical Working Group Draft Block Schedule
ATLANTA 1/2019

SUNDAY								MONDAY								TUESDAY								
	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8
8:00 AM	TP	TP	TP	TP	TP	TP	TP	TP																
8:30 AM	COFFEE BREAK																							
9:00 AM																								
9:45 am - 10:45 am	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP
11:00 am - 12:30 pm	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP
12:30 PM	LUNCH								President's Luncheon								LUNCH							
1:00 PM																								
1:30 pm - 3:00 pm	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP
									TP								TP							
									2:15 PM - 4:15 PM								TP							
																	3:15 PM - 4:45 PM							

Notes:

TP= Technical Program

In addition, there are also two rooms at the expo on Monday with programs

To keep this on one page, we removed Wednesday from the spreadsheet, as we are not suggesting changes on this day. The technical program on Wednesday runs from 8am-12:30pm in 8 rooms.

FUTURE CONFERENCE

SUNDAY				MONDAY				TUESDAY								
	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8
8:00 AM	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP
8:30 AM	COFFEE BREAK															
9:00 AM																
9:45 am - 10:45 am	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP
11:00 am - 12:30 pm	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP	TP
12:30 PM	LUNCH							LUNCH								
1:00 PM								President's Luncheon								
1:30 pm - 3:30 pm	TP	Swing Space	Swing Space	TWG	TWG	TWG	TWG	Swing Space	Swing Space	Swing Space	Swing Space	Swing Space	Swing Space	TWG	TWG	TWG
								2:15 PM - 4:15 PM TWG	2:15 PM - 4:15 PM TWG	2:15 PM - 4:15 PM TWG	2:15 PM - 4:15 PM TWG	2:15 PM - 4:15 PM TWG	2:15 PM - 4:15 PM TWG	2:15 PM - 4:15 PM TWG	2:15 PM - 4:15 PM TWG	2:15 PM - 4:15 PM TWG
3:45 pm - 5:45 pm	TP	Swing Space	Swing Space	TWG	TWG	TWG	TWG	Swing Space	Swing Space	Swing Space	Swing Space	Swing Space	Swing Space	TWG	TWG	TWG
								4:30 PM - 6:30 PM TWG	4:30 PM - 6:30 PM TWG	4:30 PM - 6:30 PM TWG	4:30 PM - 6:30 PM TWG	4:30 PM - 6:30 PM TWG	4:30 PM - 6:30 PM TWG	4:30 PM - 6:30 PM TWG	4:30 PM - 6:30 PM TWG	4:30 PM - 6:30 PM TWG

Notes:

TP= Technical Program

TWG= Technical Working Group (current TC/ TG/ MTG/ TRG, but larger groupings)

Swing Spaces= Maybe for Technical Program? Or other need?

TP spaces = Ultimately up to CEC how the TP timeslots are defined, but need to leave the slots for TWGs as noted

Sunday TP = Leave one room as TP all day for possible mini-track



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TC/ TG/ MTG/ TRG Reorganization

Feedback Form

We now have an opportunity to direct the technical vision of the society
as we will soon celebrate our 125th anniversary.

We have presented a draft proposal to you and now we want your input and suggestions:

Name _____ TC _____

We are looking for your input on potential synergies with other functional groups, for example, if your FG were to reform with 1 or 2 other groups, which ones do you think most align with your current scope?

I am excited about

I would like to propose

I think we will have difficulty with

Other

Please direct your answers or inquires to TAC through your individual Section Head
or to Sarah Maston, the TWG Reorganization Chair, at sarah@greenfootprintscx.com

Thanks for all you do for your membership and ASHRAE!