



1791 Tullie Circle, N.E./Atlanta, GA 30329

404-636-8400

TC/TG/MTG/TRG MINUTES COVER SHEET

(Minutes of all Meetings are to be distributed to all persons listed below within 60 days following the meeting.)

TC/TG/MTG/TRG No. TC5.8 DATE _____

TC/TG/MTG/TRG TITLE Industrial Ventilation

DATE OF MEETING January 30, 2017 LOCATION Las Vegas

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
John McKernan	2015	Erich Binder	2016	Eileen Jensen
Mike Baucom	2015	Gerhard Knutson	2014	Kyle Vach
Deep Ghosh	2015			Glenn Thiemanin
Kevin Marple	2016			Kevin Gildea
				Harvey Schowe
				Ruben Sidranski
				Bill Lampkin
				David Carroll
				Ryan Gallagher
				Duane Hammond
				Eric Ballachen
				Duncan Phyfe
				Harris Sheinman
				David Lee
				Ken Mead

DISTRIBUTION: All Members of TC/TG/MTG/TRG plus the following:

TAC Section Head: Ken Peet	SH5@ashrae.net
ALI/PDC: James Bochat CTTC Liaison: James Arnold Research Liaison: David John Standard Liaison: Arsen Melikov	jim.bochat@cxconcepts.com jarnold@live.com davidjohntarpon@gmail.com akm@byg.dtu.dk
Mike Vaughn, Manager Of Research & Technical Services	MORTS@ashrae.net

ASHRAE TC 5.8 Industrial Ventilation Committee

**2017 Winter Conference, Las Vegas, NV
4:15 - 6:30 P.M. local time - Monday, January 30th, 2017
Caesars Palace, 'Pool' level, Forum 1
DRAFT Meeting Minutes**

There was not an Electronic Meeting Link for this meeting, however a call in number was provided: 866-299-3188; Access Code: 513 569 7415

**Note: TC 5.8 Subcommittee: Ventilation of Hazardous Spaces meeting was cancelled
- **Michael Baucom will be providing the status of this effort****

Attendees:

Members:

Dr. John McKernan – Chair
Kevin Marple – Vice Chair
Mike Baucom - Webmaster
Deep Ghosh – Standards Subcommittee Chair

Corresponding Members:

Eileen Jensen, PE – Secretary
Bill Lampkin – Program Subcommittee Chair
Dr. Ken Mead, PE – Research Subcommittee Chair
Harvey Schowe, PE

Guests:

Duane Hammond
Duncan Phyfe
Harris Sheinman – Handbook Liaison
David Lee – Research Liaison

1. Call to Order, 4:08 PM. Self-Introduction of Existing Members and Guests: John McKernan
2. Review of June 2016 St. Louis Meeting Minutes: Quorum reached, therefore vote held.
A. 2016 Atlanta Meeting Minutes, Baucom motion to approve: 4-0-0-2 CV (John/Kevin)

3. Report on Section 5 Head Meeting: John McKernan gave a brief summary of the Section 5 Chair Breakfast meeting. The agenda for that meeting is attached.
4. Presentation of Section 5 Activities by Section Head - Ken Peet.
 - A. Ken Peet reported Society is trying to get a better understanding of how many people attend TC meetings without registering for the conference. Up until now, their information has been anecdotal and that has made it difficult to understand what the numbers really are. He asked for a show of hands of people not registered for the conference and tallied that number.
 - B. Ken noted that Paul Lindahl received the Hightower Award.
 - C. Roster updates will be done online in about a year, the Excel spreadsheet will be going away. The Master Calendar is already available through the ASHRAE Google tools.
 - D. Ken encouraged the subcommittees to conduct their meetings in between the Winter and Annual meetings, using ASHRAE's subscription to GoToMeeting.
5. Membership Roster Update Review: John McKernan
 - A. Review of ASHRAE TC Roster – John noted that there have been seven new provisional corresponding members since the St. Louis meeting. Upon comparison with the Society-listed members with John's list, it was determined there were discrepancies between who was voting vs. non-voting. Since quorum was reached either way, it was decided to use Society's list.
 - B. Review of all Voting, and Non-Voting Members, TC leadership positions, Sub-Committee Chairs, Webmaster & Liaisons. John reviewed the roster and will submit the following names for Member status, as well leadership positions: John McKernan-Chair, Kevin Marple-Vice Chair, Eileen Jensen-Secretary, Deep Ghosh-Standards Subcommittee Chair, Ken Mead-Research Subcommittee Chair, Bill Lampkin-Programs Subcommittee Chair, Ken Goodman-Member Non-quorum & Handbook Subcommittee Chair, and Mike Baucom-Webmaster. Duncan Phyfe will be moved up to Corresponding Member status.
6. Sub-Committee Reports:
 - a. Handbook: John reported for Ken Goodman that he hasn't received any comments yet on the two chapters the TC is responsible for. If he hasn't received any comments by April, he will submit the chapters to the full committee as final and John will forward them to the committee. He reminded everyone that this is pre-decisional information and is not to be shared outside of the committee. Harris Sheinman, Handbook Liaison also shared that these handbook chapters need to be voted on and approved by June, 2018 at the latest. Lastly, Harris stated that all work on the handbook chapters needs to be done in the Authors Review Portal (ARP) system.
 - b. Research: Ken Mead reported that RP1573, Fume Hood Testing Using SF6 has an action that would require a vote of the committee. The committee went into Executive Session at 5 PM; Executive Session was completed at 5:13 PM. David Lee, Research Liaison, reported that the RTAR form has been updated and doesn't require as much detail. He asked that the committee send him the form prior to submitting it to RAC so that he can review and assist us.
 - c. Standards: Deep Ghosh reported that ASHRAE GPC 21 has completed their work and sent it to IEEE to ballot. It is currently out for review under IEEE's process but he was unable to add reviewers. The ballot will close 2/20/17.

- d. Programs: Bill Lampkin noted that the one program that Kevin and Duncan submitted for this meeting was not accepted. Upcoming important dates and items:
 - i. 2017 ASHRAE Annual Conference, June 28, 2017 in Long Beach, CA.
 - ii. Seminar, Forum, Workshop, Debate and Panel Proposals are due February 6, 2017
 - iii. 2018 ASHRAE Winter Conference, January 20-24, 2018 in Chicago, IL. Due dates for papers and programs were not available at this time.
 - e. Ventilation of Hazardous Spaces: Mike Baucom reported that he hasn't done much with this since the last meeting. He is still interested in soliciting any help he can get to review this document. Harvey mentioned that he had forwarded some comments prior to this meeting; Mike said he would follow up with him offline.
- 7. Website Report: Mike Baucom reported that the website is up to date. He asked for everyone to provide him feedback on how he can make it better.
 - 8. Report out from attendees at "Replacing SF6 workshop" by INRS, Paris, France, September 8-9, 2016: Duane Hammond said that neither he or Ken Mead were able to attend this workshop but he would forward the minutes to John for dissemination to the committee.
 - 9. Other Old Business: There was no other old business discussed.
 - 10. **New Business:**
 - A. TC 5.8 and TC 9.2 potential merger: John gave a brief background on previous discussions regarding a potential merger between TC5.8 and TC9.2. He called for a motion from the floor; Deep presented the following motion:

Motion by Deep Ghosh: "Due to lack of active participation and continued struggle to establish quorum for conducting official business at both TC 9.2, Industrial Air Conditioning Committee and TC 5.8 Industrial Ventilation Committee meetings. I move that both Committees be merged and renamed, TC 9.2 Industrial Air Conditioning and Ventilation Committee."

Second by Kevin Marple

Background information: TC 5.8 was once a part of TC 9.2. Many people are members of both committees. To better use the time of our volunteers and improve efficiency, this merger makes sense. The work of the ventilation committee can still occur as a subcommittee without the burden of meeting quorum. This is contingent on TC9.2 passing a similar motion at their meeting this week. Of the responses received by the chair, all have been positive.

Vote: 4-0-0-2 CV
 - B. Other New Business as requested: There was no other new business requested.
 - 11. New TC members: Continue to enter through Provisional Corresponding Member (PCM) process, available at www.ashrae.org/tcs
 - 12. Announcements:

- A. Future Meetings**
 - i. Annual 2017 – Long Beach, CA; June 24 – 28
 - ii. Winter 2018 – Chicago, IL; Jan. 20 – Jan. 24
 - iii. Annual 2018 – Houston, TX; June 23 - 27
- 13. Meeting adjourned at 6:06 PM**

AGENDA
SECTION TC/TG/TRG CHAIR'S BREAKFAST MEETING
2017 Winter Meeting
Las Vegas, NV

Sunday, January 29th

6:30 A.M. – 8:00 A.M. EST

Caesar's Palace – ALL Section meetings located on Pool level

Section 1, Forum 11 Room

Section 3 Forum 3 Room

Section 5, Forum 20 Room

Section 7, Forum 12 Room

Section 9, Forum 4 Room

Section 2, Abruzzi Room

Section 4, Forum 13 Room

Section 6, Tribune Room

Section 8, Forum 5 Room

Section 10, Forum 6 Room

Note: The agenda and times estimated are for guidance only and should be modified to be sure the most important information is discussed and that there is adequate time to discuss things important to the committee chairs. Note that the time estimates shown allow for other important business to be conducted within the time frame allotted.

- a.1. Introduction of TC/TG/TRG/MTG Chairs, Vice Chairs, and guests (5 minutes).
- a.2. Review and approval of agenda (2 minutes). (note that you might want to solicit additions and corrections at the time the draft agenda is sent to the TC Chairs – it is almost impossible to do anything in only 2 minutes)
- a.3. Review and approval of minutes (3 minutes).
- a.4. Summarize discussion from last meeting and status of actions assigned (5 minutes).
- a.5. Liaisons from other committees should each be given a chance to speak and distribute information pertinent to the section from their committee. An effort should be made to accommodate their schedules without major disruption of the Section meeting (15 Minutes).
 - a.5.1. Research Administration
 - a.5.2. Conference and Exposition Committee (CEC)
 - a.5.3. Handbook
 - a.5.4. Other Standing Committees
- a.6. Discuss the MBOs set for the year and how the section can work together to address them (10 minutes).
- a.7. Review summary report for the Section prepared from the TC/TG activity database and TAC (15 minutes).
 - a.7.1. Section activities and trends will be discussed relating to membership, research, programs, publications and new communication tools and services.
- a.8. Identify shared opportunities and challenges for section (10 minutes).
- a.9. Announcements and Reminders for TC/TG/TRG & MTG Chairs (Handout)
- a.10. Adjourn.

Note: This agenda will be discussed and finalized during the full TAC meeting in Las Vegas. 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
LAS VEGAS 2017**

A. NEW!

1. 2016-2017 Hightower Award Recipient – Paul Lindahl, TC 3.6 & TC 8.6

Mr. Paul Lindahl's contributions to ASHRAE TC 3.6 and TC 8.6 in the past four years include being a handbook contributor to multiple chapters, a special liaison assignment to SSPC 90.1, and tours in various leadership positions on both TCs.

Mr. Lindahl's contributions to ASHRAE technical committees, and especially to TC 3.6 and TC 8.6 in the last four years, have been exemplary and make him a well deserving recipient of the George B. Hightower Technical Achievement Award.

2. 2016-2017 Service to ASHRAE Research Award Recipient - Joseph Huber, TC 1.3

Mr. Joseph Huber's contributions to ASHRAE TC 1.3 (Heat Transfer and Fluid Flow) in the past four years included being a contributor to multiple RTARs and work statements. Research Subcommittee chair for the TC, and Proposal Evaluation Subcommittee (PES) member, and Project Monitoring Subcommittee (PMS) member for multiple projects.

Mr. Huber's contributions to ASHRAE technical committees, and especially to TC 1.3 in the last four years, have been exemplary and make him a well deserving recipient of the Service to ASHRAE Research Award.

3. ASHRAE members for SY 16-17 now have free online access to ASHRAE's *Science and Technology for the Built Environment (STBE)* through their existing ASHRAE.org account

STBE is ASHRAE's archival research publication offering comprehensive reporting of original research in science and technology related to the stationary and mobile built environment, including indoor environmental quality, thermodynamic and energy system dynamics, materials properties, refrigerants, renewable and traditional energy systems and related processes and concepts, integrated built environmental system design approaches and tools, simulation approaches and algorithms, building enclosure assemblies, and systems for minimizing and regulating space heating and cooling modes. The journal also features review articles that critically assess existing literature and point out future research directions.

You can access your free online subscription to STBE through the ASHRAE website under the blue bar drop-down menu – *Resources & Publications*. ASHRAE will reassess the free access option on an annual basis and may discontinue access if interest is low.

4. New ASHRAE Technology Portal is Now Available

The new ASHRAE Technology Portal provides easier free member access to ASHRAE Journal articles and ASHRAE Research Reports through a new robust search feature. We will still sell the reports and articles in the bookstore for nonmember purchase. URL <http://technologyportal.ashrae.org>.

5. Peer Review of *Advanced Energy Design Guide for K-12 School Buildings: Achieving Zero Energy*

In partnership with AIA, IES, and USGBC and with support from the DOE, ASHRAE has embarked on a new series of Advanced Energy Design Guides focusing on achieving zero energy performance. The first guide in the series is for K-12 School Buildings. The project committee is finalizing the first draft in anticipation of the first peer review. The 65% Complete Technical Refinement Draft for the Advanced Energy Design Guide for K-12 School: Achieving Zero Energy will be available for review and feedback from February 6, 2017 to February 17, 2017. All review input must be received by February 19, 2017. Once received, the input will be compiled and then reviewed by the committee who will make changes to the draft based on that input. To participate in the review, please go to www.ashrae.org/freeaedg to download the review process instructions and review input form as well as a copy of the document for review (in pdf format). The draft will be available for download starting on February 6, 2017 through Friday, February 17, 2017.

6. One New Multidisciplinary Task Groups (MTGs) have been formed since St. Louis meeting

MTG.ACR – Air Change Rate

Scope: MTG.ACR will coordinate TC/TG/TRG/SSPC technical activities to help evaluate the technical basis and adoption of airflow rate specifications in terms of Air Change Rate (ACR) or Air Changes per Hour (ACH) for spaces such as cleanrooms, laboratories, patient rooms, operating rooms, and other similar spaces. Responsibilities include the development of research projects, development and presentation of technical programs for all types of spaces which currently require ACR specifications, and a special publication detailing aspects of the ACR philosophy and practice. The work of this MTG will potentially impact design guidelines, ASHRAE Handbook, and related ASHRAE standards. This MTG intends to involve other national and international groups and organizations in these efforts

The following committees and outside groups are currently represented on this MTG: TC 2.2, 4.3, 5.3, 5.8, 9.2, 9.6, 9.10, 9.11, SSPC 62.1, SSPC 170, I2SL, NIOSH, AIHA and potentially more that wish to also join.

The chair of this MTG is Kishor Khankari.

For more information on this new MTG and the nine other existing MTGs, please go to the MTG section on the following web page: <http://www.ashrae.org/tcs> .

If your TC would like to have a voting representative on a particular MTG, please contact the ASHRAE Manager of Research and Technical Services, Mike Vaughn, at MORTS@ashrae.net.

7. Updated TC Website Template – Initial Feedback, if any?

Since the Atlanta meeting, the Society's Electronic Communication Committee (ECC), ECC staff, TAC volunteers Gage and Cooper, and a consultant have been working to modernize and streamline the template for TC websites and now most of the TC websites have been moved to this new template. The new template so far includes

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WIZYWIG editing, automatic rosters, and simplified document uploading. There is no longer a need for HTML editing. If you have any feedback on the new template or suggestions for additional features, please let your Section Head and MORTS know.

8. **New Restructured TC MOP (Manual of Procedures) to be issued after Las Vegas Meeting**

TAC has restructured the TC MOP so that it is easier to navigate and find information.

9. **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)

B. AT THIS MEETING

1. **On-Site Training Options**

i. **TC/TG/TRG Chair's Training Workshop Reminder**

Sunday January 29th, 9:45-10:45 AM in Roman I Room (Promenade Level) in the Caesars Palace Hotel. Roster Update training will be the primary topic of discussion, but other information for TCs will also be announced at this meeting. TAC is also interested in any feedback you have to offer on current TC programs and procedures.

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

Monday, January 30th, 6:30 AM – 8:00 AM in Roman III Room (Emperors Level) in the Caesars Palace 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 resolve issues & questions that TC may have concerning their research program. The training portion of this meeting will focus on the duties and responsibilities of Project Monitoring Subcommittee members.

iii. **TC Program Subcommittee Chair Training in Las Vegas**

Tuesday, 1/31, 11:15 AM – Noon, in Forum 23 Room (Pool Level) in the Caesars Palace Hotel. *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

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iv. Handbook Training for TCs

ASHRAE Authoring Portal

Sunday, 1/29, 8 AM to 9 AM, in Turin Room (Promenade Level) in the Caesars Palace Hotel.

This session will introduce the new [ASHRAE Authoring Portal](#) for collaborative work on Handbook chapters or other publications. The session will also show new TC Handbook chairs (and TC chairs) what they need to know about Handbook chapter development and revision—the process, the product, and how to succeed. Includes time for Q&A and discussion.

Volume/TC Meetings

Sunday, 1/29, 9 AM to 10 AM

2018 Refrigeration, Room: Forum 19 (Pool level)

2019 HVAC Applications, Room: Forum 3 (Pool level)

2020 HVAC Systems and Equipment, Room: Forum 18 (Pool level)

The agenda for these Handbook-volume-specific meetings will include topics of interest/applicability to all chapters, plus time for Q&A and individual consultation between Handbook Committee liaisons and TC Handbook chairs. Liaisons will still do their best to attend TC Handbook Subcommittee meetings for additional consultation as needed.

We know some TCs have chapters in more than one volume. If your TC has chapters in more than one volume, **you should go to the volume meeting for the chapters that are due the soonest**. And if your TC hasn't appointed a Handbook Subcommittee chair or representative who can attend one of these meetings, now would be a great time to do so.

On behalf of the Handbook Committee, staff, and ASHRAE Handbook users everywhere, thank you for your continuing dedication to this effort.

v. Seminar 30 – Electronic Project and Document Management: An Introduction and ASHRAE's System

Monday, 1/30, 11 AM to 12 PM, in Augustus III/IV Room (Emperors Level) in the Caesars Palace Hotel.

- *Basecamp Fundamentals* – Cynthia Callaway, P2S Engineering Inc., Long Beach, CA
- *ASHRAE Authoring Portal* – Mark Owen, Handbook Editor, ASHRAE, Atlanta, GA

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

Mailboxes are located just outside ASHRAE Headquarters Office (Forum 8-10 – Pool Level – Caesars Palace Hotel).

Also, Internet access and computers for e-mail are available in the Cyber Café located in the registration area (Palace I, Emperors Level, of the Caesars Palace hotel) 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 Caesars Palace. ASHRAE will be working with the internet provider to manage the bandwidth so that member

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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. Wi-Fi Access: **ashrae2017** is the network, **lasvegas** is password (case sensitive).

3. **RPM (Remote Participation Meetings) being held in Las Vegas**

The 11th RPM beta test (Remote Participation Meetings – Formerly known as E&P meetings), which allows some TC members to participate in the TC meeting from a remote location electronically, will occur in Las Vegas and the following twelve TCs have agreed to participate in this test: TC 4.2, TC 4.5, TC 6.8, TC 7.3, TC 7.8, TC 7.9, TC 9.2, TC 9.4, TC 10.3, TC 10.6, MTG.CCDG, and MTG.LowGWP – In addition to these TCs, 19 PCs and 2 Ad hoc committees also hosted RPM meetings in Las Vegas. Overall, RPM requests exceeded our capacity on Monday and Tuesday with six RPM sets, but I'm happy to report that 4 additional RPM sets will be purchased for use at the Long Beach meeting. This will allow us to host 10 RPM meetings simultaneously in Long Beach. The chairs of those TCs participating should provide to their Section Head feedback on their RPM meeting experience before TAC meets on Wednesday morning, 2/1.

C. UPCOMING DEADLINES

1. **17-18 Roster Update Process & TC Input Deadline**

Remember, the current 2016-2017 roster for your TC, TG or MTG is in effect until after the June meeting this year. The new committee rosters for Society year 2017-2018 will be created based upon the update information that each TC, TG or MTG provides to their section head at this meeting **by midnight, Tuesday, 1/31/17** and these new rosters will go into effect on July 1, 2017. Please see your section head for the 2017-2018 Roster Update form if you still need a copy.

2. **TC Activity Forms for the Las Vegas Meeting are due to Your Section Head before Wednesday, 2/1/17**

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.

3. **Seminar and Forum proposals for Long Beach are due by Monday, February 6th, 2017**. Please visit the following site to submit your proposal:

For more information, go to: www.ashrae.org/LongBeach .

D. REMINDERS

1. **16-17 Rosters Access & Distribution** - Remember, the current 2016-2017 roster for your TC, TG or MTG is in effect until after the June meeting this year – through Friday, June 30th.

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By now, each TC, TG and MTG chair should have received a PDF & MS-Excel file of their new 2016-2017 roster from their Section Head or staff for distribution to the committee. In addition, each member can view all of the rosters of their committees on the ASHRAE Website. Go to www.ashrae.org <http://www.ashrae.org>, click on the "Membership & Conferences" tab in the header, click on "My Membership" text in the left sidebar, and log in (if you have not logged in lately, you might need to set up a new username and password). Click on the "Update Your Bio / View or Edit Your Profile" link. Now, you should see your current "bio info". Click on "Committees" on the left sidebar; all of the committees you are a member of will appear. Click on the "blue" roster text at the left hand side of a committee to reveal the roster with linked contact information. 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. 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>

An updated draft of the TC/TG/TRG Manual of Procedures (MOP) is being considered for approval by TAC at the Las Vegas meeting and it is expected to be posted soon to this site and announced to all TC chairs once posted.

3. 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/>

4. 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.

5. 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

6. Is Your Committee Website up to Date?

If not, please ask your webmaster to at least post the latest minutes and the Las Vegas 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 Steve Comstock for review and approval (scomstock@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/standards-research--technology/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 schedules for maintain the new websites.

7. TC 2016-2017 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.

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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. RAC Prioritizing Research Topics Related to the Residential Sector

In 2015-2016, RAC started prioritizing for bid accepted research topics that support Goal #3 below from the Research Strategic Plan.

Goal #3: To reduce significantly the energy consumption for HVAC&R, water heating and lighting in existing homes.

2. 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 Houston 2018 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 Las Vegas meeting.

CEC is particularly interested right now in getting suggestions for the 2018 Annual Meeting Program in Houston, TX. Please submit your suggestions before February 20, 2017.

3. 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.

There is also now a link on the following webpage of the ASHRAE website where you can volunteer online to be a paper reviewer: <https://www.ashrae.org/membership--conferences/conferences/papers-and-programs#reviewers>

4. TAC Presentation Template for TC members to use with local Chapter

TAC developed a presentation template that allows TC members, without a lot of effort, to give a presentation to their local chapter on TAC and the TCs in general and to also customize a few slides with information specific to their own TC or TCs. The template is posted on the Technical Committee page of the ASHRAE website for download under the heading “General TC Information.”

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

The need is for 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 would include courses with a focus on new technologies that need to be shared, fundamentals that may have been forgotten, standard applications that need explanation, and courses based on new design guides.

The objective of the ASHRAE Learning Institute (ALI) is to provide quality, authoritative and practical technical information of broad interest.

Contact Karen Murray (ASHRAE staff) at kmurray@ashre.org with new course ideas.

F. CURRENT & UPCOMING ASHRAE CONFERENCE PROGRAMS

1. Program Focus at Las Vegas Winter Conference

The Las Vegas Conference Technical Program addresses a wide variety of topics in the application of technology to practice. Specific program tracks are as follows:

Program Focus at Las Vegas Winter Conference

- i. Track 1: Fundamentals and Applications
- ii. Track 2: HVAC&R Systems and Equipment
- iii. Track 3: Water-Energy Nexus
- iv. Track 4: Commercial and Industrial IAQ
- v. Track 5: Mission Critical Design and Operation
- vi. Track 6: Effects of Climate Change on HVAC&R
- vii. Track 7: Energy Efficient Industrial Buildings
- viii. Track 8: Building Operation and Performance

2. Long Beach Annual Conference - June 24 – June 28, 2017

Seminar and Forum proposals for St. Louis are due by **Monday, February 6th, 2017.**

Conference Website: www.ashrae.org/LongBeach

Conference Program Chair: Ann Peratt Email: ann.peratt@gmail.com

Announcements and Reminders for TC/TG/TRG & MTG Chairs LAS VEGAS 2017

Program Focus at Long Beach Annual Conference

- i. Track 1: Fundamentals and Applications
 - ii. Track 2: HVAC&R Systems and Equipment
 - iii. Track 3: Refrigeration
 - iv. Track 4: Building Life Safety Systems
 - v. Track 5: Controls: Smart Building Systems and the Security Concerns as Technology Emerges
 - vi. Track 6: Commissioning: Optimizing New and Existing Buildings and their Operation
 - vii. Track 7: Net Zero Energy Buildings: The International Race to 2030
 - viii. Track 8: Residential Buildings: Standards and Guidelines and Codes
 - ix. Track 9: Research Summit
- 3. CEC Seeks Program Tracks Suggestions for the 2018 Annual Meeting in Houston, TX**
CEC is seeking track suggestions for the 2018 Annual meeting technical program. If you have a suggested track, please pass it on to Tony Giometti, staff liaison to CEC, at PRGstaff@ashrae.net before February 20, 2017.

Additional information on past, present, and potential future tracks can be found at the end of this handout as additional information

G. OTHER UPCOMING WORKSHOPS, CONFERENCES AND EVENTS

1. 2017

- i. **2017 ASHRAE Winter Meeting** – Jan. 28 to Feb. 1, 2017 – Las Vegas, NV USA – Contact: <http://ashraem.confex.com/ashraem/w17/cfp.cgi>
- ii. **2nd International Conference on Energy and Indoor Environment for Hot Climates** - February 26 - 27, 2017 - Doha, QATAR – Contact: <https://www.ashrae.org/membership--conferences/conferences/ashrae-conferences/energy-and-indoor-environment-for-hot-climates>
- iii. **2017 American Society of Thermal and Fluids Engineers (ASTFE) Conference and 4th International Workshop on Heat Transfer (IWHT)** – Apr. 2 – Apr. 5, 2017 – Las Vegas, NV USA – Contact: <http://www.astfe.org/tfec2017/>
- iv. **Sustainable Management of Refrigeration Technologies in Marine and Off-Shore Fisheries Sectors** – April 6-8, 2017 - Bangkok, Thailand – Contact: <https://www.ashrae.org/membership--conferences/conferences/ashrae-conferences/marine-2017>

Announcements and Reminders for TC/TG/TRG & MTG Chairs LAS VEGAS 2017

- v. **Take Control: Using Analytics to Drive Building Performance Webcast** – Apr. 20, 2017 – 1 pm to 4 pm EDT – Contact: www.ashrae.org/webcast
- vi. **Beyond NZEB: Retrofit of Existing Buildings** – May 10 - 11, 2017 – Matera, ITALY - Contact: <http://www.aicarr.org/Pages/EN/Upcoming%20Events/2016/50AiCARR.aspx>
- vii. **Climamed 2017** – May 12 – 13, 2017 – Matera, ITALY – Contact: http://www.aicarr.org/Pages/Convegna/CLIMAMED_2017/Call_for_papers.aspx
- viii. **12th IEA International Heat Pump Conference** – May 15 to May 18, 2017 – Rotterdam, NETHERLANDS – Contact: <http://hpc2017.org/> See attached brochure for additional information.
- ix. **2017 ASHRAE Annual Conference** – June 24 – June 28, 2017 – Long Beach, CA USA – contact: <https://ashraem.confex.com/ashraem/s17/cfp.cgi>
- x. **Building Simulation 2017** – Aug. 7 – Aug. 9, 2017 – San Francisco, CA USA – Contact: <http://www.buildingsimulation2017.org/>
- xi. **ISHPC2017** – Aug. 7 – Aug. 10, 2017 – Tokyo, JAPAN – Contact: <http://biz.knt.co.jp/tour/2017/ISHPC2017/congress.html>
- xii. **ASHRAE Building Performance Analysis Conference** – September 27-29, 2017 – Atlanta GA, USA – Contact: <https://ashraem.confex.com/ashraem/bpa17/cfp.cgi>
- xiii. **2nd ASHRAE Developing Economies Conference** – Nov. 10-11, 2017, Delhi, INDIA – Contact: <https://ashraem.confex.com/ashraem/de17/cfp.cgi>

Cindy Moreno

Michael Collarin

Track No.	A2018 Houston	W2018 Chicago
1	Fundamentals and Applications	Fundamentals and Applications
2	HVAC&R Systems and Equipment	HVAC&R Systems and Equipment
3	District Energy and Cogen Plants	Standards, Guidelines and Codes
4	Safeguarding your HVAC&R System	Earth, Wind & Fire
5	Residential: Modern Buildings in Hot and Humid Climates	Beyond the "L": IAQ and Air Conditioning in Transportation Applications and Enclosed Vehicular Facilities
6	Professional Skills	Tall Buildings
7	Controls: Troubleshooting Building Management Systems	Modeling Throughout the building Life Cycle
8	Research Summit	Performance and Design of Heat Exchange Equipment under Real Field Type Conditions
9		Refrigerant Mini Track @ Expo

Ann Peratt

Leon Shapiro

A2017

W2017

Long Beach

Las Vegas

Fundamentals and Applications

Fundamentals and Applications

HVAC&R Systems and Equipment

HVAC&R Systems and Equipment

Refrigeration

Water-Energy Nexus

Building Life Safety Systems

Commercial and Industrial IAQ

Controls: Smart Building Systems and
the Security Concerns as Technology
Emerges

Mission Critical Design and Operation

Commissioning: Optimizing New and
Existing Buildings and their Operation

Effects of Climate Change on
HVAC&R

Net Zero Energy Buildings: The
International Race to 2030

Energy Efficient Industrial Buildings

Residential Buildings: Standards
Guidelines and Codes

Building Operation and Performance

Research Summit

Tom Kuehn

Jennifer Leach

A2016

W2016

St Louis

Orlando

Advances in Refrigeration Systems
and Alternative Refrigerants

[Systems and Equipment](#)

Research Summit

[Fundamentals and Applications](#)

Fundamentals and Applications

[Design Build](#)

HVAC Systems and Equipment

[International Design](#)

Smart Building Systems/Remote
Monitoring and Diagnostics

[Standards, Guidelines and Codes](#)

Indoor Environment: Health,
Comfort, Productivity

[Cutting Edge Technologies](#)

Professional Skills Beyond
Engineering

[The Great Debate](#)

Renewable Energy Systems and Net
Zero Buildings

[Modern Residential Systems](#)

David Claridge

Doug Cochran

A2015

W2015

Atlanta

Chicago

[HVAC&R Systems & Equipment](#)

[Systems & Equipment](#)

[HVAC&R Fundamentals & Applications](#)

[Fundamentals & Applications](#)

[Research Summit](#)

[Industrial Facilities](#)

[Refrigeration](#)

[Large Buildings: Mission Critical Facilities and Applications](#)

[Building Operation, Maintenance, and Optimization/Commissioning](#)

[Energy Efficiency](#)

[Indoor Air Quality](#)

[Life Safety](#)

[Modeling Throughout the building Life Cycle](#)

[Design of Energy and Water Efficient Systems](#)

[High Performance Buildings](#)

[Hospital Design & Codes](#)

[Moving AEDG's into the Mainstream](#)

Mike McDermott

Jon Cohen

A2014

W2014

Seattle

New York

[Indoor Environment – Health,
Comfort and Productivity](#)

[Systems and Equipment](#)

[Research Summit](#)

[Fundamentals and Applications](#)

[Ground Source Heat Pumps State of
the Art: Design, Performance and
Research](#)

[Environmental Health Through IEQ](#)

[HVAC&R Systems & Equipment](#)

[Building Information Systems;
Integrating technology for control,
management, optimization and
efficiency](#)

[HVAC&R Fundamentals and
Applications](#)

[International Design](#)

[Standards, Guidelines and Codes](#)

[Building Performance and
Commissioning for Operation and
Management](#)

[Refrigeration](#)

[Hydronic System Design for Efficiency
and Large Buildings](#)

[Installation, Commissioning,
Operation, Maintenance of Existing
Buildings](#)

[Tall Buildings: Performance Meets
Policy](#)

[Professional Skills](#)

Sarah Maston

A2013

Denver

W2013

Dallas

Research

[HVAC&R Systems & Equipment](#)

Research

[HVAC Fundamentals and Applications](#)

[Integrated Project Delivery](#)

[Standards, Guidelines and Codes](#)

[Building Energy Modeling vs. Measurement & Verification- Closing the Gap](#)

[Energy Conservation](#)

[Mile-High Efficiency & Equipment](#)

[Refrigeration](#)

[Renewable & Alternative Energy Sources](#)

[Large Building Design](#)

[HVAC&R Systems & Equipment](#)

[Facility Management; Operations, Technology and Energy Improvements](#)

[HVAC&R Fundamentals & Applications](#)

[Industrial & Transportation Ventilation](#)

TC/TRG Meeting Sign-In Sheet

X Winter
 Annual
 Meeting

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Name	Comm Membr? Y/N	Position	Phone	Fax	Email	Address
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