

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING  
 ENGINEERS, INC.**

**1791 Tullie Circle, N.E./Atlanta, GA 30329  
 404-636-8400**

*"These draft minutes have not been approved and are not the official, approved record until approved by this committee."*

**TC/TG/TRG MINUTES COVER SHEET**

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

TC/TG/TRG NO 8.2 DATE May 12, 2015

TC/TG/TRG TITLE Centrifugal Machines

DATE OF MEETING January 26, 2015 LOCATION Chicago, IL

MEMBERS PRESENT, appt yr	OTHERS PRESENT	EX-OFFICIO MEMBERS
Rick Heiden, (VM), 2012, Chair	Erica Albrecht	Micheal Patton – 2016 Handbook
Fred Betz (VM), 2013, Vice Chair	Jeremy Benwood	David Yashar – Research Liaison
Forrest Yount (VM), 2013, Sec	Scott Ford	James Aswegan – Standard Liaison
Justin Kauffman (VM), 2014	Yimbu Rui	Stephanie Reiniche – Mgr Stndrds
Mark Adams	Earl Clark	Michael Vaughn – Staff Liaison
Phillip Johnson		Walter Gronzik – TAC Chair
Mark Rogan		Francis Mills – Special Pubs
Rupal Choski, (VM), 2014		Julian De Bullet – ALI/PDC
Dr. Laurent Abbas (VM), 2014		
Raymond Good (VM), 2013		
Konstantions Kontomaris (VM), 2011		
Buss Price (VM), 2014		
Seth Gladfelter		
Scott MacBain		
William McQuade-TAC Chair		
Riyaz Papar		
Jeb Schreiber		
Michael Stark		
John Vucci		
Julian de Bullet		
KateLynn Balmer		

### DISTRIBUTION

<i>All Members of TC/TG/TRG plus the following:</i>	
TAC Section Head:	Steve Duda <a href="mailto:sduda@rossbar.com">sduda@rossbar.com</a>
TAC Chair:	Bill McQuade <a href="mailto:william.f.mcquade@jci.com">william.f.mcquade@jci.com</a>
All Committee Liaisons As Shown On TC/TG/TRG Rosters:	Program: Bill Dietrich <a href="mailto:william.dietrich@daikinapplied.com">william.dietrich@daikinapplied.com</a> Research: David Yashar <a href="mailto:david.yashar@nist.gov">david.yashar@nist.gov</a> Standards: James Aswegan <a href="mailto:jaswegan@titus-hvac.com">jaswegan@titus-hvac.com</a> Special Pubs: Francis Mills <a href="mailto:famills@hotmail.co.uk">famills@hotmail.co.uk</a> Chapter Tech Transfer: Keith Reihl <a href="mailto:reihl@reihlengineering.com">reihl@reihlengineering.com</a> ALI/PDC: Julian De Bullet <a href="mailto:julian@debullet.com">julian@debullet.com</a>  90.1: Susanna Hanson <a href="mailto:shanson@trane.com">shanson@trane.com</a>  20/20 Vision: Tom Watson <a href="mailto:tom.watson@daikinapplied.com">tom.watson@daikinapplied.com</a>
Manager Of Standards:	Stephanie Reiniche <a href="mailto:sreiniche@ashrae.org">sreiniche@ashrae.org</a>
Manager Of Research & Technical Services:	Mike Vaughn <a href="mailto:mvaughn@ashrae.org">mvaughn@ashrae.org</a>

### MEETING MINUTES

1. Call to Order at 2:20 pm on January 26, 2015.
2. Introduction of Attendees, Liaisons, Officers and Guests.
  - Attendance sheet circulated
  - Quorum established, 9 of 9 voting members present
3. Reviewed TC8.2 Mission Statement and Scope.
  - Scope and mission statement **Appendix A**.
4. Review/Approval of Seattle minutes (meeting date June 30, 2014)
  - Unanimous approval 9-0.
5. Reports:
  - 5.1 Program Subcommittee F. Betz
    - Requested interest in paper session.
    - Fred reviewed attached report **Appendix B**. Notes in red were added from this TC Committee Meeting.
  - 5.2 Handbook Subcommittee J. Kaufmann
    - Chapters that TC 8.2 is responsible are 38 – Compressors, and 43 – Liquid Chilling Systems. Intend to streamline and reorganize chapters for 2016 handbook.
    - Chapter 38 is due May 30 and Chapter 43 is due July 1.
    - Adding content on oil-free, mag bearing, ceramic bearings, rotor dynamics, and compressor speed is determined for Chapter 38.
    - There is discussion on updating refrigerant section for Chapter 43.
    - Will utilize Drop Box to facilitate collaboration.
  - 5.3 Standards Subcommittee S. Hanson
    - Rick reviewed attached report **Appendix C** on behalf of Susanna.
    - Amendments in red were based on meeting input and submitted by Rick.

5.4 Research Subcommittee

M. Adams

- Mark reviewed attached report **Appendix D**.

5.5 Membership

R. Heiden

- Motion approved for Phil Johnson to remain as liaison on MTG and Kostas to remain as alternate.
- Phil pointed out that David Miller at Daiken is different than one on roster and will have him reach out.
- Dr. Laurent Abbas volunteered to replace Mark Rogan as Webmaster.
- Steve Duda, Section 8 head offered assistance with roster.
- Membership report attached **Appendix E**

5.6 Honors and Awards

R. Heiden

- Phil Johnson was nominated for Hightower Award by Committee.

5.7 Web Master

M. Rogan

- Mark requested approved minutes from meeting for posting on TC website at web address <http://tc82.ashraetcs.org/>
- Website has been updated.

5.8 Section 8 Chair's Breakfast

R. Heiden

- Rick reviewed meeting summary **Appendix F**.
- There is a new award for Best TC in each section. TC 8.11 won the award this time.

6. Old Business

None

7. New Business

None.

8. For the Good and Well Being...

9. Adjournment at 4:00pm

Respectfully submitted by:

\_\_\_\_\_  
Forrest Yount

## Appendix A-Scope and Mission

### Scope

TC 8.2 is concerned with packaged equipment which involves centrifugal compressors, including those heat exchangers, drivers, controls and accessories, which are specific to packaged centrifugal equipment. TC 8.2 is also concerned with the design and performance of centrifugal compressors, steam turbines and gas turbines for use in refrigerating applications.

### Mission

The mission of Technical Committee 8.2, Centrifugal Machines, is to provide world class technical expertise on all aspects of centrifugal refrigeration machines. This committee is a resource to industry, academia, and others following society protocols through seminars, standards, technical papers/articles and other presentations.

## Appendix B-TC 8.02 Program Subcommittee Report

### 2015 Winter Meeting, Chicago, IL

Subcommittee Meeting: Jan 25, 2015 / 6:00 pm – 6:30 pm

Attendees: Jeb Schreiber, Ray Good, Stephen Duda, Seth Gladfelter, Laurent Abbas, Justin Kauffman, Mark Adams, Rick Heiden, Phil Johnson, Forest Yount, Fred Betz – Guests Greg Chilcote, Eric Albrecht, Jeremy Benwood, Dave Yashar, Brian Gallus, Scott Ford

**Notes in red were added from the overall TC Committee Meeting on Monday, Jan 26, 2015.**

### CEC Update:

- **Deadline** for Seminar/Forum submissions is **February 9, 2015** for **Atlanta (2015 Annual)**. TCs will be notified of acceptance or rejection of Seminar/Forum submissions March 23, 2015. Tracks for Atlanta are:
  - Systems and Equipment
  - Fundamentals and Applications
  - Research Summit
  - Refrigeration
  - Building Operation, Maintenance, and Optimization / Commissioning
  - Indoor Air Quality
  - Modeling Throughout the Building Life
  - High Performance Buildings
  - Moving Advanced Energy Design Guidance to the Mainstream
  
- **Deadline** for new Conference Paper Abstracts and Conference Paper Session Proposals for **Orlando (2016 Winter)** is **March 23, 2015**. **The final Conference Papers for Orlando are due for submittal by July 6, 2015.**

### Recent Past Programs:

- Seminar #21 in Denver 2013 Summer: *Water Side Economizers – a.k.a. Free Cooling*. Chair: Fred Betz. Speakers: Charlie Putz, Jeff Stein, Suzanne Hanson.
- NYC 2014 – None
- Seattle Summer 2014: Chiller Efficiency and Standard 90.1 - *Where Do We Go From Here* - Susanna Hanson Chair and speaker; Dick Lord speakers. 8:00 – 9:30, Tuesday.

- Seattle Summer 2014: Seminar Operating and Maintaining Oil Free Chillers - Phil Johnson Chair and speaker: Ryan Geister speaker. 1:30 – 3:00, Tuesday

Chicago 2015 Programs:

- **TC 8.2 was the co-sponsor of Seminar 30 titled “What the F-gas Is Going on in Europe: What the HFC Phasedown Means for Our Industry”.**

Planned or Future Programs:

- Seminar for Atlanta 2015: Seminar on Multiple Chiller Sequencing. Andy Price to Chair. Speakers will be Steve Taylor, Doug Reindl, and two additional speakers. We will use this as an “Intermediate” level back-to-basics seminar. Andy will submit by Feb 9. **The speakers for the Multiple Chiller Sequencing Seminar that will be re-submitted for Atlanta will be Andrew Price, Susanna Hanson, and Steve Taylor.**
- Proposed Seminar for Atlanta Annual Meeting 2015: Centrifugal Compressor Design – Back to Basics. Fred will Chair; Rick Heiden to speak and Phil, Forrest and Jeb will provide names of speakers from their companies. Course to cover the “internals” and operating characteristic of the centrifugal compressor (speed, stages, refrigerant, support elements, etc.). **Rick Heiden, Jeb Schreiber and Julian DeBullet will be speakers in the Centrifugal Compressor Design Seminar to be submitted for Atlanta.**
- Proposed Seminar for Orlando 2016: Centrifugal Chiller Design – Back to Basics. Speakers not yet designated. Rick Heiden to Chair. Course to cover the the overall assembled chiller and suggested topics like “hot gas bypass use and abuse”, Standard 90.1 rules for chiller design, code language. **For the Centrifugal Chiller Design Seminar to be submitted for Orlando, it was suggested that three “subtopics” could be Heat Exchanger Components, Chiller Controls, and the Overall Chiller Operation. Julian DeBullet will do the Heat Exchanger presentation. Seth Gladfelter will also be a speaker for one of the topics.**
- Proposed Paper Session for Orlando 2016: We would like to get a Paper Session to submit for the Orlando Winter meeting in 2016. We would like to get some “application” type (case studies) papers. Some suggested topics were operations of chillers that are being used for ice duty, data centers, or high temperature applications. As stated above, abstracts for these papers will need to be submitted by this coming March 23 to get into the Orlando meeting. **For the Orlando Conference Paper Session, Andrew Price will write/present a paper on High Temperature Heat Recovery Centrifugal Chillers; Ray Good will write/present a paper on Air Cooled Centrifugal Chillers; Mark Adams will obtain a writer/presenter from JCI for a paper.**
- Proposed Seminar for St Louis or Las Vegas meeting: *Introduction to Standard 184 MOFT for Chillers* to be submitted when Std. 184 is released. Rick Heiden to Chair: *Possible speakers – Robert Blanton, Phil Johnson, John Vucci.* After the Standard is in operation for about 6 months, we could do a paper session later.

- Jeb Schreiber volunteered to be a speaker at one of our upcoming programs.

Future Conferences:

- Our committee will try to develop a “paper” or speaker for one of our sessions to regarding the RP project that was completed but no paper ever received. We would like to put together a paper session for future presentation. We need volunteers to develop several papers.
- All committee members – feel free to send suggested topics for Sessions.

Old Business

- Volunteer Peer Reviewers for Conference Papers: Phil Johnson, Justin Kauffman, Ray Good, Susanna Hanson, Riyaz Papar, Fred Betz, Paul Kozlov, Mike Zamalis, Rick Heiden.

New Business

- Ray Good has agreed to take over the Program Subcommittee Chair position at the Atlanta meeting when Fred moves to TC Chair.

Next Meeting

- Subcommittee will meet in Atlanta or by Conference Call before Atlanta.

Respectfully submitted by:

Fred Betz  
TC 8.02 Program Subcommittee Chair  
Jan 26, 2015  
email: [fbetz@pedcoea.com](mailto:fbetz@pedcoea.com)  
phone: 513 378-1394 (cell)

**Appendix C-TC 8.02 Standards Subcommittee Report**

**SSPC 90.1** Susanna Hanson

New chiller efficiency table took effect 1/1/2015. Work continues on the 2016 version, however chiller related changes (kadj correction for NPLV) is waiting for 550/590 latest draft to be adopted. An erratum in the SI version of the chiller section will be addressed in time for the supplement this year.

AHRI is directed to prepare efficiency targets for heat recovery and heat reclaim chillers that are not currently covered by the scope of 90.1, in time for consideration at the 90.1 interim meeting in Atlanta in April 16-18, 2015. There is concern that if the efficiency levels aren't decided soon that the equipment won't be covered in the 2016 Standard and this has been requested for several cycles. The 550/590-2013 update provided test procedures and/or rating points for this class of equipment.

In the absence of a model code, states are beginning to use 550/590 rating conditions to develop their own requirements. It would be better/preferable to have a model code derived from the 90.1 Standard.

**SPC 184P** Mark Baines

The SPC is being asked by Standards Committee to have a public review draft no later than the conclusion of the June 2015 ASHRAE Annual Meeting in Atlanta.

Mark Baines has agreed to take on leadership for Standard Project 184P, effective immediately. We thank John Vucci for his leadership of 184P for many years.

Phil Johnson is the “keeper” of the actual latest STD-184 draft. Phil was to amend the draft after the last meeting in Seattle.

### **SPC 30 Rupal Choksi**

The SPC is being asked by Standards Committee to have a public review draft no later than the conclusion of the June 2015 ASHRAE Annual Meeting in Atlanta.

Chris Lesnar has agreed to take on administrative responsibilities for Standard Project 30 working draft.

### **SPC 147-196P Mark Adams**

Standard 147 is now on continuous maintenance and there is a list of requested changes. 196P is MOT for leakage in HVAC equipment.

### **SPC 205P Phil Johnson**

The purpose of proposed Standard 205 is to facilitate sharing of equipment characteristics for performance simulation by defining standard representations such as data models, data formats and automation interfaces.

The scope of proposed Standard 205 is “This standard applies to data used in the performance simulation of any HVAC&R or other facility system, equipment, or component.

Several components have been selected as pilots to development the framework including chillers and unitary equipment.

Susanna Hanson,  
TC 8.2 Standards Subcommittee

## **Appendix D-TC 8.02 Research Subcommittee Report**

### **Research S/C Chair Breakfast notes of interest**

- ASHRAE has 59 active research projects with a total value of \$11M.
- Since June meeting 5 new projects were approved for funding, and 15 Tentative Research Projects were released for bidding. (no projects are on hold due to funding)
- RAC evaluated 4 RTAR’s – Accepted - 3 rejected - 1.
- RAC reviewed 8 work statements – Accepted - 5; Returned – 2; Rejected -1
- 6 TRP were released bid.
- One URPS are under review by RAC.

### **Current Activities**

Research Subcommittee meeting was held on Sunday June 29, 2014.

Attendees: M. Adams, J. Kauffman, F. Betz, L. Abbas, J. Schreiber, P. Johnson, R. Heiden, S. Gladfelder, S. Duda, R. Good, J. Benwood, E. Albrecht, D. Yasher, B. Gallus, S. Ford, G. Chilcote.

### **Project Status**

- **1677 - Measurement and Prediction of Waterside Fouling Performance of Internally Enhanced Tubes in Cooling Tower Applications**
  - We are cosponsoring a study being undertaken by TC 8.5 on fouling of enhanced tubes. Looking at a smooth bore tube and multiple enhanced surface tubes. Scope includes testing, providing a model of the results, and a simulation calculation methodology. Researcher has completed design of the test facility and began proof of concept testing. Currently developing and perfecting methods and finalizing water chemistry. Completion is now forecast for March 2017. This is a delay to the original schedule.
  
- **1716 - Oil concentration of field-installed liquid chillers with flooded type evaporators.**
  - RTAR has been approved to proceed to the next stage. RAC returned some comments to be incorporated into the Work Statement. Justin Kauffman will take the lead on this effort.
  - Draft WS was reviewed and comments were received. The current plan is to continue work on the WS and set up a conference call within the next two months to review and hold further discussion. Will then be sending out for a letter ballot in order to meet the May 15 submission to RAC for the Atlanta meeting.

### **Future Activities**

- Rick presented a draft RTAR for research of heat transfer of motor components for hermetic motors in refrigerant. This would develop correlations for motor manufacturers to use for motor design. We could potentially co-sponsor with TC8.1, TC1.3 and TC1.11. Some discussion and suggestions occurred and we plan to have this RTAR ready for a vote at Atlanta.
  
- We will continue to solicit additional ideas.

Respectfully submitted,  
Mark Adams  
January 26, 2015



**Appendix E-TC 8.02 Membership Subcommittee Report**

This report was delivered after the Chicago meeting following adjustments by the Rick Heiden, Fred Betz and Steve Duda

**Membership SUBCOMMITTEE REPORT**

Period Beginning	1/1/2015	7/1/2015	1/1/2016	7/1/2016	1/1/2017	7/1/2017
<b>COMMITTEE ASSIGNMENTS</b>						
Chair	Heiden	Betz	Betz	Betz	Betz	Yount
Vice – Chair	Betz	Yount	Yount	Yount	Yount	
Secretary	Yount	Kaufman	Kaufman	Kaufman	Kaufman	
Program	Betz	Good	Good	Good	Good	
Standards	Hanson	Hanson	Hanson	Hanson	Hanson	
Research	Adams	Adams	Adams	Adams	Adams	
Handbook	Kauffman	Rogan	Rogan	Rogan	Rogan	
Webmaster	Rogan	Abbas	Abbas	Abbas	Abbas	
Membership	Heiden	Yount	Yount	Yount	Yount	
Honors and Awards	Heiden	Heiden	Heiden	Heiden	Heiden	
MTG.LowGWP Liaison	Johnson	Johnson				
MTG.LowGWP Alternate	Kontomaris	Kontomaris				
<b>VOTING MEMBERS</b>						
1	Heiden	Hanson	Hanson			
2	Betz	Betz	Betz			
3	Yount	MacBain	MacBain			
4	Kauffman	Kauffman	Kauffman	Kauffman	Kauffman	Kauffman
5	Good	Good	Good	Good	Good	
6	Kontomaris	Rogan	Rogan	Rogan	Rogan	Rogan
7	Abbas	Abbas	Abbas	Abbas	Abbas	Abbas
8	Choski	Choski	Choski	Choski	Choski	Choski
9	Price	Price	Price	Price	Price	Price
10		Vucci	Vucci	Vucci	Vucci	Vucci
11		Duda	Duda	Duda	Duda	Duda
Non-Quorum		Johnson	Johnson			

Respectfully submitted,  
 Rick Heiden  
 April 29, 2015

**Appendix F-Chair’s Breakfast Report  
 Announcements and Reminders for TC/TG/TRG & MTG Chairs  
 Chicago 2015**

- 2014-2015 Hightower Award Recipient – John Carter, TC 4.3**  
 Mr. John Carter’s contributions to ASHRAE TC 4.3 include programs, Handbook Chapters, and a tour through all three officer positions: Secretary, Vice-Chair, and a three-year term as Chair. He is now in his sixth year and third term as Secretary, and Secretary is

arguably one of the most and Seminars at the ASHRAE Winter & Annual Conferences are meritorious, and greatly benefit ASHRAE Members.

Mr. Carter's contributions to ASHRAE technical committees and especially to TC 4.3 in the last four years have been exemplary and make him a well deserving recipient of the *George B. Hightower Technical Achievement Award*.

**2. 2014-2015 Service to ASHRAE Research Award Recipient – Iain Walker, TC 4.3**

Dr. Walker has been actively involved as a volunteer in some capacity (as a Work Statement Author, a PES member, or PMS member) on at least five different research projects over the past several years. In one case (RP-1478), that work was inspired by the Presidential Ad Hoc Homeland Security Committee, who specifically called for research on test methods for determining building tightness and collection of building tightness data in its May 2006 memo *CBR Strategies and Information/Methods Gaps*. Iain Walker took up that cause as a member of the PES and PMS.

Dr. Walker's contributions to ASHRAE technical committees in the area of research and especially to TC 4.3 in the last four years have been exemplary and make him a well deserving recipient of the *Service to ASHRAE Research Award*.

**3. 2014-2015 Top TC Award for Section**

TAC has developed a new award call the Outstanding Technical Committee Award. The purpose of the award is to recognize, annually, a single Technical Committee within each TAC Section that has the highest measured performance based on a set of weighted criteria as compared to other TCs within that same Section. The goal of this award is to reward TCs for the behaviors and activities that further the goals of TAC and exhibit excellence in the operation of a technical committee. The criterion used is a point system with values assigned to various metrics and activities, which are collected through the TC activity form. The award will serve to heighten TC Chair and committee member awareness of what activities are valued to encourage improved performance, and foster friendly competition between TCs within a Section.

**4. 2015-2016 Roster Update Process & TC Input Deadline**

Remember, the current 2014-2015 roster for your TC, TG or MTG is in effect until after the June meeting this year. The new committee rosters for Society year 2015-2016 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, 1/27/15 and these new rosters will go into effect on July 1, 2015. Please see your section head for the 2015-2016 Roster Update form if you still need a copy.

All changes to the roster should be noted on the roster update form. Changes requested after June 30<sup>th</sup> are considered emergency roster changes. The following are considered to be valid emergencies:

- Quorum is affected because a voting member can no longer attend meetings due to job change or long-term illness.
- Resignation of Chair or MTG voting member
- Two voting members become employed by the same company
- Error in roster due to mistake by ASHRAE staff

- Addition of new participating group to a MTG

By now, each TC, TG and MTG chair should have received a PDF & MS-Excel file of their 2014-2015 roster from their Section Head for distribution to the committee. In addition, each member can view all of the rosters of their committees on the ASHRAE Website by logging into the member's only section at <http://ASHRAE.org/MyActiveCommittees>. Click on the "blue" roster text at the left hand side of a committee to reveal the roster with linked contact information.

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

Sunday January 25, 9:45-10:45a in Chicago Room (5th floor) in the Palmer House Hilton Hotel. As with the Breakfast meeting, both the Chair and Vice-Chair are expected to attend; attendance will be tracked so that we can assess who has been trained. Bring questions - if you need an answer, it's quite likely others also need the same answer. A main focus of this particular workshop will be the roster update process.

**6. TC Activity Form due this Tuesday by Midnight**

An electronic copy of your TC Activity form for the Chicago meeting is due to your Section Head before midnight Tuesday, 1/29. Section heads can provide an electronic copy of the form if still needed.

**7. ASHRAE Code of Ethics**

The BOD's reaffirmation of ASHRAE's Code of Ethics provides an opportunity for sharing and reminding ASHRAE members of their responsibilities under this code. Technical Committees are the major drivers behind ASHRAE's technical content, and thus TC Chairs are at the frontline for ensuring that their committees are performing within the Code of Ethics guidelines. If you have any questions or concerns regarding appropriate conduct, contact your Section Head. A copy of the ethics is also attached to this document.

See the following link for the latest version of the ASHRAE Code of Ethics:

<https://www.ashrae.org/about-ashrae/>

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

Mailboxes are located just outside ASHRAE Headquarters Office (Salon 3 Room – 3rd Floor – Palmer House Hilton 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 Palmer House Hilton Hotel. 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, however, that everyone limit their usage to functions that do not use excessive bandwidth such as Facebook, YouTube, streaming video, etc. Wireless Network: **PH\_Meeting\_Room**  
Access code: **ASHRAE15** (code is case sensitive).

**9. 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>

The TC/TG/TRG Manual of Procedures (MOP) has been revised to include a new committee type, Multidisciplinary Task Groups (MTGs). MTGs are different from TCs, TGs, and TRGs. The objective of the MTG is to first try to better coordinate and focus the activities of the affiliated TC and non-TC groups (EHC, REF, SSPCs, outside groups, etc) that make-up the MTG on the task for which the MTG was created without duplicating the functions of a TC or TG so that the task can be completed as efficiently as possible. In special cases, MTGs may also be authorized by TAC to assume some TC/TG functions, such as research, if it is deemed necessary to better complete their task assignment.

Since the need, purpose, and progress of each MTG is reassessed and reaffirmed by TAC each year, there are no term limits for the MTG Chair, Vice Chair, Members and Alternates.

**10. New MTGs that have been formed**

TAC approved the formation of the following new multidisciplinary task group (MTG):

**MTG.O&MEE – Operations and Maintenance Activities That Impact Energy Efficiency**

Scope: MTG.OMBE will coordinate TC/TG/TRG activities to help support the application of ASHRAE guidelines, Standards and other technical resources to support regulatory bodies, utilities, building owners and others who are attempting to enhance efficiency of existing buildings. Responsibilities include suggestions for research, development and presentation of technical programs of all types on maintenance and its impact on energy consumption and efficiency. It will be especially involved with interactions with those who are introducing and evaluating strategies for building efficiency enhancements.

This MTG will maintain interface with and call on the resources of TCs in Sections 2, 4, 6, 7, 8 and 9 and maintain an especially close relationship with Standards 90.1 & 2. It will also maintain a relationship with GGAC. It will both draw on their knowledge and contribute areas of interest that it may be productive for them to consider.

The chair and vice chair of the MTG is Thursten Simonsen and Robert Baker, respectively.

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

Also since the 2014 annual meeting, **MTG.HPAS – High Performance Air-handling Systems for Buildings except Low-Rise Residential Building**

Voted to disband as a MTG after completing their charge.

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](mailto:MORTS@ashrae.net).

**11. E&P Beta Test #7 TC meetings being Held in Chicago**

The 7<sup>th</sup> beta test of Electronic and Physical (E&P) meetings, which allows some TC members to participate in the TC meeting from a remote location electronically, will occur in Chicago and the following nine TCs have agreed to participate in this test: TC 1.5, TC 2.2, TC 7.9, TC 4.2 (RP-1561 PMS & RP-1699 PMS), TC 6.8, TC 8.4, TC 8.8, and TC 9.2.

The chairs of those TCs participating should provide to their Section Head feedback on their E&P meeting experience before TAC meets on Wednesday morning, 1/28 so that we can continue to improve this new service. Those interested in possibly having E&P capability for their next TC meeting in Atlanta should contact Mike Vaughn ([MORTS@ashrae.net](mailto:MORTS@ashrae.net))

## 12. CEC Seeking Track Suggestion for 2016 Annual Meeting in St. Louis & Other Program Information

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, the CEC seeks ideas for tracks for the St. Louis 2016 meeting next year 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](mailto:Giometti@ashrae.org))

### TC Volunteers needed to help improve the ASHRAE technical program for 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.

### TC Program Subcommittee Chair Training in Chicago

Please notify your program subcommittee chair that CEC will be offering training to them as follows in Chicago: Tuesday, 1/27, 11:15 a.m. – Noon, Kimball Room, (3rd Floor) Palmer House Hilton Hotel.

### Upcoming Program Dates & Orlando Program Tracks

#### Atlanta Meeting - June 27 – July 1, 2015

- Conference Paper accept/reject notifications sent January 30, 2015
- Seminar, Forum and Workshop Proposals Due on February 9, 2015
- Revised Conference Papers/Final Technical Papers due February 13, 2015
- Conference and Technical Paper Final Accept/Reject Notifications sent Feb. 27, 2015
- Seminar, Forum, Workshop Accept/Reject Notifications sent March 23, 2015
- All PPTs Due Online by June 5, 2015
- Final Day for Commercialism Revision Upload prior to on-site by June 17, 2015
- Speaker's Lounge Opens on June 27, 2015
- Conference Website: <http://www.ashrae.org/atlanta/>

**Seminar and Forum proposals for Atlanta are due by Monday, February 9<sup>th</sup>, 2015.** Please visit the following site for more information and to submit your proposal:

[www.ashrae.org/atlanta](http://www.ashrae.org/atlanta)

#### Orlando Meeting - January 23 - 27, 2016

- Conference Paper abstracts due on March 23, 2015
- Conference Paper Abstract Accept/Reject Notifications sent April 6, 2015
- Technical papers due by April 20, 2015
- Website Opens for Seminar, Forum and Workshop Proposals on June 4, 2015
- Final Conference Papers Submitted for Review by July 6, 2015
- Conference Paper accept/reject notifications sent August 3, 2015
- Seminar, Forum and Workshop Proposals Due on August 10, 2015

- Revised Conference Papers/Final Technical Papers Due on August 21, 2015
- Conference and Technical Paper Final Accept/Reject Notifications sent August 28, 2015
- Seminar, Forum, Workshop Accept/Reject Notifications sent September 11, 2015
- Conference Website: <http://www.ashrae.org/orlando/>

#### Program Focus at Orlando Winter Conference

- **Track 1: Systems and Equipment**

Selection of equipment and systems is paramount to HVAC&R design. Papers and programs in this track will assist designers, engineers, and operators in the design, selection, and operation of HVAC&R systems and equipment.

Track chair: Gary C. Debes - [gcdebes@verizon.net](mailto:gcdebes@verizon.net)

- **Track 2: Fundamentals and Applications**

Fundamentals are the foundation for understanding applications in engineering. Key components of ASHRAE fundamentals include thermodynamics, psychrometrics, fluid and mass flow, IAQ, and building envelope. This track provides opportunities for papers and presentations of varying levels across a large topic base. Concepts, design elements and shared experiences for theoretical and applied concepts of HVAC&R design are included.

Track chair: Cynthia Moreno - [cindym@tmmechanical.com](mailto:cindym@tmmechanical.com)

- **Track 3: Design Build**

Joining the contractor and the designer into the same team, the design-build method of project delivery is increasing in percentage of projects awarded in the US. This track explores the challenges and benefits of D-B project delivery. Highlight successful projects; discuss contracts; review management responsibilities; offer alternative design and construction processes. These topics and more will be included.

Track chair: James Liston - [jfliston@verizon.net](mailto:jfliston@verizon.net)

- **Track 4: International Design**

Design for various environmental elements, geography and culture demand that new and innovative strategies be developed. As an international organization, ASHRAE strives to meet the needs of a global membership. HVAC&R systems vary globally and this track provides an opportunity to share innovative and necessary design elements that can be shared internationally.

Track chair: Leon Shapiro - [leoneshapiro@gmail.com](mailto:leoneshapiro@gmail.com)

- **Track 5: Standards, Guidelines and Codes**

ASHRAE is known for its standards and design guidelines – and they are constantly evolving with the intent on improving the built environment and its systems. Designers, Contractors, Architects and Owners must be able to keep up with the continuing changes in the current cycle but to also be prepared for the future changes. In addition, there is a large interaction of ASHRAE with the code authorities and government to incorporate these standards and guidelines. The series of sessions in this track highlight the changes to the standards and guidelines, their projected path and optimum design techniques to meet or exceed the standards.

Track chair: Michael Collarin - [Michael.Collarin@parsons.com](mailto:Michael.Collarin@parsons.com)

- **Track 6: Cutting-Edge Technologies**

As energy codes become increasing more stringent, we are challenged to find creative ways to improve efficiencies in the effort to achieve net zero buildings. This track will include the most

recent advances in HVAC&R system design, equipment, and construction techniques. Programs included will focus on efficiency, responsible use of resources and energy recovery.

Track chair: Ann Peratt - [agregg.ksu@gmail.com](mailto:agregg.ksu@gmail.com)

- **Track 7: The Great Debate**

Engineers commonly weigh multiple solutions to find the best match for a certain project. Centralized or Decentralized heating and cooling? Chemical or non-chemical water treatment? These sessions and papers will present divergent methods for accomplishing the same task. Hear all sides of the debate and decide for yourself.

Track chair: Chuck Curlin - [ccurlin@shultzeg.com](mailto:ccurlin@shultzeg.com)

- **Track 8: Modern Residential Systems**

Engineering for residential HVAC and plumbing systems and equipment used to be referred to as catalog engineering: for a two bedroom house choose one from Column A; for a three bedroom house choose one from Column B. Recent years have seen a boom in energy efficient solutions for the savvy, fiscally-conscience home owner. From glazing to water heating to lighting, this track will provide you with the latest advances for the residential market.

Track chair: Rocky Alazazi - [mralazazi@yahoo.com](mailto:mralazazi@yahoo.com)

For more information, go to: [www.ashrae.org/orlando](http://www.ashrae.org/orlando)

**13. Section Head Report on TC/TG/TRG websites in Section**

Is your committee website up to date? If not, please ask your webmaster to at least post the latest minutes and the Chicago 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. This form of communication is critical to the efficient operation of your committee, and for attracting new members.

TAC and the Electronic Communications Committee (ECC) recently posted a webinar recording on how to set-up and maintain a basic TC website using the ASHRAE server and TC website template at the following link:

<http://media.ashrae.biz/webinar/TrainingWebinar.avi>

**14. New TAC Presentation template can be used by TC members to make a presentation to their local Chapter**

The new presentation template 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 now on the Technical Committee page of the ASHRAE website for download.

**15. Does your TC Have an Idea for a New ASHRAE Learning Institute (ALI) course?**

The Professional Development Committee (PDC) is seeking ideas for new ASHRAE Learning Institute (ALI) courses. The need is for practical courses of broad interest, ranging from face-to-face seminars, short courses, 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 from new design guides.

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

Please submit your new course ideas to Karen Murray [kmurray@ashrae.org](mailto:kmurray@ashrae.org) (ASHRAE staff) or Darin Nutter [PDCchair@ashrae.net](mailto:PDCchair@ashrae.net) (PDC chair).

**16. New Presentation Developed on TCs and ASHRAE Code Interactions**

Model codes (codes that are intended to be used as a model for jurisdictions to adopt at the state and local level) are being revised at a fairly rapid rate. ASHRAE Staff has been interacting with some TCs to ensure that model codes do not prevent sound engineering practice in the HVAC&R world. ASHRAE has a path for establishing official ASHRAE positions on proposals, and a mechanism to submit proposals and comments to model code organizations. If approved in accordance with ASHRAE procedures, ASHRAE Staff will represent positions of the Society in the model code development process. Many TCs are unaware that such a mechanism exists, and a new presentation has been developed for posting on the TC page of the ASHRAE website [www.ashrae.org/tcs](http://www.ashrae.org/tcs) intended to provide some additional information on how TCs 1) can help ASHRAE write more enforceable documents/standards, and 2) can provide input to the code development process through ASHRAE.

**17. Special effort to welcome new members, and visitors (potential members), particularly international members, to TC meetings**

Potential new members for your committee have been encouraged to drop-by your meeting in Chicago. 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.

**18. 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](mailto:mvaughn@ashrae.org) or [MORTS@ashrae.net](mailto:MORTS@ashrae.net)

**19. Employment Discipline added to ASHRAE BIO Online Input Form**

A new input field titled Employment Discipline has been added to the ASHRAE online member (BIO)graphical input form and **TAC would like ALL TC members to self-declare their employment discipline prior to the start of the new Society year on July 1, 2014** by going to the Members Only section (<https://eweb.ashrae.org/eweb/DynamicPage.aspx?Site=ASHRAE&WebKey=8396a37a-9fc2-4f50-9332-5eebebe73494>) and enter their employment discipline information. The link should take you directly to the screen, which is located under demographics. You will need your login and password to enter. Employment Discipline is located in the third section.

Employment Discipline	
category:	Government and Organizations
discipline:	Not-for-Profit Organization (USGBC, Habitat, etc.)

Once you have made the necessary updates, save the changes and logout.

**Employment Disciplines:**

Academic

Academic - Professor/Staff



Academic – Student

Government and Organizations

Government - Federal (e.g., DOE, EPA, USDA)  
Government - National Lab (e.g., ORNL, NIST)  
Government - Local (e.g., city or state governments)  
Not-for-Profit Organization (USGBC, Habitat for Humanity, etc.)  
Trade Association (ACCA, SMACNA, etc.)

Building Industry

Architect  
Building Owner / Management Firm  
Consultant  
Contractor  
Designer  
Facilities Manager/Operator

Manufacturing Industry

Manufacturer  
Manufacturer  
Manufacturer – Sales  
Manufacturer’s Representative

Other

Model Code Organization

Retired

Utility

Other

Thus far, approximately **30%** of TC Members have declared their discipline.

**20. Upcoming Workshops and Conferences:**

2015

- **International Air-Conditioning, Heating, Refrigerating Exposition (AHR Expo) – 2015 - January 26 – 28, 2015 - Chicago, IL – Contact: <http://www.ahrexpo.com/>**
- **2015 HVACR & Mechanical Conference for Education Professionals – March 9 to 11 – Baltimore, Maryland – Contact: <http://careersinhvacr.org/site/306/HVACR-Mechanical-Conference>**
- **2015 ASHRAE Webcast – New Tomorrows for Today’s Buildings: Existing Building Commissioning – April 23, 1 - 4 pm EDT – Contact: <https://www.ashrae.org/membership--conferences/webcasts> - Contact:**
- **Advanced HVAC and Natural Gas Technologies - May 6 – 9, 2015 - Radisson Blu Hotel, Riga, LATVIA – Contact: <http://www.rtu.lv/en/>**
- **2015 International Conference on Energy and Environment in Ships - May 22 – 24, 2015 - Athens, Greece – Contact: <https://www.ashrae.org/membership--conferences/conferences/2015-international-conference-on-energy-and-environment-in-ships>**

- **ISHVAC-COBEE 2015: 9th International Symposium on Heating, Ventilation and Air Conditioning (ISHVAC) and 3rd Conference on Building Energy and Environment (COBEE)** - July 12 – 15, 2015 - Tianjin, CHINA – Contact: <http://www.cobee.org/>
- **ICR2015 (24th IIR International Congress of Refrigeration)** - August 16 – 22, 2015 - Yokohama, JAPAN – Contact: <http://www.icr2015.org/index.html>
- **Cold Climate 2015** - October 20 – 23, 2015 - Dalian, CHINA – Contact: <http://www.coldclimate2015.org/>
- **11th International Conference on Industrial Ventilation** - October 26 – 28, 2015 - Shanghai, CHINA – Contact: <http://www.ventilation2015.org/>
- **IBPSA 2015 (14th International Conference of the International Building Simulation Conference)** – December 7 – 9, 2015 - Hyderabad, INDIA – Contact: <http://www.bs2015.in/>

#### 2016

- **International Air-Conditioning, Heating, Refrigerating Exposition (AHR Expo) – 2016** - January 25 – 27, 2016 - Orlando, FL – Contact: <http://www.ahrexpo.com/>
- **CLIMA 2016** - May 22 – 25, 2016 - Aalborg, DENMARK – Contact: <http://www.clima2016.org/welcome.aspx>
- **IAQVEC 2016 (9th International Conference on Indoor Air Quality Ventilation & Energy Conservation in Buildings)** – Oct. 17 – 19, 2016 - Seoul, SOUTH KOREA – Contact: <http://iaqvec2016.org/>

## 21. Upcoming TC Award Nomination Submission Deadlines

### 2015-2016 Hightower Award Nomination Process and Deadline

Nominations for the 2015-2016 George B. Hightower Technical Achievement Award are due to you Section Head by **September 1, 2015**. The award recognizes outstanding technical leadership and contributions on a TC/TG/TRG during the past four years, excluding research and standards activities. Please go to the Technical Committee page of the ASHRAE website at the following link under the “Procedures and Forms...” heading: <http://www.ashrae.org/tcs>

### 2015-2016 Service to ASHRAE Research Award Nomination Process and Deadline

Nominations for the 2015-2016 Service to ASHRAE Research Award for TC volunteer efforts in research are due to RAC research liaison by **September 1, 2015**. Please go to the Research page of the ASHRAE website at the following link under the “Research Grants and Awards” heading: <http://www.ashrae.org/research>

## 22. PEC On-line Orientation Modules Now Available on Effective Meetings and other Useful Topics

New on-line orientation modules are now available at the link below on following subjects:

- ASHRAE Structure, Councils and Committees
- Budgets and Financial Statements
- Conducting Effective Meetings

- Strategic Planning

<https://www.ashrae.org/society-groups/councils#pubed>

## ASHRAE Code of Ethics

### ASHRAE Code of Ethics

(Approved by ASHRAE Board of Directors January 30, 2013)

1.140.001.1 As members of ASHRAE or participants in ASHRAE committees, we pledge to act with honesty, fairness, courtesy, competence, integrity and respect for others in our conduct.

A. Efforts of the Society, its members, and its bodies shall be directed at all times to enhancing the public health, safety and welfare.

B. Members and organized bodies of the Society shall be good stewards of the world's resources including energy, natural, human and financial resources.

C. Our products and services shall be offered only in areas where our competence and expertise can satisfy the public need.

D. We shall act with care and competence in all activities, using and developing up-to-date knowledge and skills.

E. We shall avoid real or perceived conflicts of interest whenever possible, and disclose them to affected parties when they do exist.

F. The confidentiality of business affairs, proprietary information, intellectual property, procedures, and restricted Society discussions and materials shall be respected.

G. Each member is expected and encouraged to be committed to the code of ethics of his or her own professional or trade association in their nation and area of work.

H. Activities crossing national and cultural boundaries shall respect the ethical codes of the seat of the principal activity.