MINUTES

FINAL

TECHNICAL ACTIVITIES COMMITTEE

2017 Winter Meeting

January 28 & February 1, 2017

Note: These draft minutes have not been approved and not the official, approved record until approved by the Technical Activities Committee.
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January 28 & February 1, 2017

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<td>ADJOURN</td>
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</tbody>
</table>
# PRINCIPAL MOTIONS

**TECHNICAL ACTIVITIES COMMITTEE**  
**January 28 & February 1, 2017**

<table>
<thead>
<tr>
<th>No.</th>
<th>Motion</th>
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<tbody>
<tr>
<td>1</td>
<td>minutes of the TAC 2016 Annual Meeting be approved as drafted</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>TAC Reference Manual be approved as indicated in <em>Attachment C</em></td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>TAC MOP be approved as indicated in <em>Attachment D</em></td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Scope to MTG.ACR be revised as indicated below:</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>TC MOP be revised to include re Website Policy &amp; tech Bulletins</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>MTG.CCDG, become TRG 9.CCD, Cold Climate Design with the following title and scope</td>
<td>6</td>
</tr>
</tbody>
</table>

* * * * *
# NEW ACTION ITEMS
## TECHNICAL ACTIVITIES COMMITTEE
### January 28 & February 1, 2017

<table>
<thead>
<tr>
<th>Action No.</th>
<th>Responsibility</th>
<th>Summary of Action Items</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jokar/Todorovic</td>
<td>Review recommendations for O&amp;M and provide feedback on how to move forward with the O&amp;M Initiatives</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Meredith</td>
<td>Consult with TC 2.6 to address what criteria a reasonable municipal noise ordinance</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Cooper</td>
<td>Review the activity forms and investigate ways to consolidate the dashboard tool</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Staff</td>
<td>Delete the TOP TC Award information from all places</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Staff</td>
<td>Update SH Breakfast removing the item to discuss section minutes.</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>Staff</td>
<td>Send out web conference call details early enough in order to allow adequate time for the procedures to be reviewed</td>
<td>7</td>
</tr>
</tbody>
</table>

**Rollover Action Items**

### Annual Meeting, June 25 & 29, 2016

<table>
<thead>
<tr>
<th>Action No.</th>
<th>Responsibility</th>
<th>Summary of Action Items</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Staff</td>
<td>Invite Standards Committee or SSPC 90.1 to TAC 7AM ExCom breakfast in Las Vegas</td>
<td>On-going</td>
</tr>
<tr>
<td>2</td>
<td>TAC</td>
<td>Review possible changes to the TAC Coordinator position and send suggestions to Cramm.</td>
<td>On-going</td>
</tr>
<tr>
<td>7</td>
<td>Cooper</td>
<td>Review the TC Activity Sheet process and move forward with changes for an online tool to track TC activities</td>
<td>On-going</td>
</tr>
<tr>
<td>8</td>
<td>Staff</td>
<td>Collect data on TC attendees that do not register for the conference and send this information to Bilderbeck</td>
<td>On-going</td>
</tr>
</tbody>
</table>

**Rollover Action Items**

### Annual Meeting, June 27 & July 1, 2015

<table>
<thead>
<tr>
<th>Action No.</th>
<th>Responsibility</th>
<th>Summary of Action Items</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Cramm/Thomas</td>
<td>Continue to work towards an on-line annual roster update process</td>
<td>On-going</td>
</tr>
</tbody>
</table>

****
LIST OF ATTACHMENTS

<table>
<thead>
<tr>
<th>ATTACHMENT</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A:</td>
<td>2016-2017 TAC MBOs</td>
</tr>
<tr>
<td>B:</td>
<td>ExO Report to Committees</td>
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<tr>
<td>C:</td>
<td>TAC Reference Manual – Proposed Revisions</td>
</tr>
<tr>
<td>D:</td>
<td>TAC Mop – Proposed Revisions</td>
</tr>
<tr>
<td>E:</td>
<td>Section Meeting/Breakfast Handouts</td>
</tr>
<tr>
<td>F:</td>
<td>Liaison Speaking Guidelines</td>
</tr>
</tbody>
</table>
MEMBERS PRESENT:
- Michael Bilderbeck, Chair
- Kelley Cramm, Vice Chair
- Amir Jokar, Section 1
- Elbert Phillips, Section 2
- Jay Kohler, Section 3
- Dennis Wessel, Section 4
- Kelley Peet, Section 5
- Mark Hegberg, Section 6 – Saturday Only
- Marija Todorovic, Section 7
- Dustin Meredith, Section 8
- Krishnan Gowri, Section 9
- James Tauby, Section 10
- Thomas Justice, MTG Head
- Michael Sherber, Training Coordinator – Saturday Only

GUESTS:
- Manalee Nabar, Region I LeaDRS
- Keith Yelton, Region XI DRC
- Bill Walters, Region I DRC
- Heather Schopplein, ECC Vice Chair
- Jim Wolfe, LowGWP, Chair

ASHRAE STAFF
- Barbara Minor, Roster Coordinator
- Kenneth Cooper, Liaison/Special Activities Coordinator
- Tom Lawrence, BOD Ex-O

MEMBERS ABSENT:
- Patricia Graef, Coordinating Officer

A. CALL TO ORDER & INTRODUCTIONS
Chair, Michael Bilderbeek, called the meeting to order at 8:00 am, EST on Saturday, January 28, 2017. Members and staff attended as recorded above.

B. ADDITIONS AND/OR CHANGES TO THE AGENDA
No additions to the agenda

C. ACTION ITEMS TRACKING AND PRELIMINARY REVIEW OF ACTION ITEMS

<table>
<thead>
<tr>
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<td>TAC</td>
<td>Review possible changes to the TAC Coordinator position and send suggestions to Cramm.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3</td>
<td>Justice</td>
<td>Request a formal submission from the MTG.CCDG to be converted to a Technical Committee</td>
<td>Complete</td>
</tr>
<tr>
<td>4</td>
<td>Staff</td>
<td>Send to TAC the link for the TC training module</td>
<td>Complete</td>
</tr>
<tr>
<td>Action No.</td>
<td>Responsibility</td>
<td>Summary of Action Items</td>
<td>Status</td>
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<td>Cramm/Thomas</td>
<td>Continue to work towards an on-line annual roster update process</td>
<td>On-going</td>
</tr>
</tbody>
</table>

**D. APPROVAL OF MINUTES**

It was moved and seconded that,

1. minutes of the TAC 2016 Annual Meeting be approved as drafted

**MOTION #1 – PASSED 15-0-0 CNV**

**E. CHAIR’S REPORT** (Lawrence)

1. **Disposition of Motions from Last Meeting Requiring Higher Body Approval** – TAC has sent a recommendation to the BOD that a Presidential Ad Hoc be formed in order to increase ASHRAE’s presence and influence in the technical area of refrigeration.
2. **New or Carryover Action Items Assigned to TAC by Tech. Council**:
   - Review TAC ROB section for accuracy.
3. **New Members Council Referrals: Handbook chapter on ventilation for the textile and garment industries**
   - Motion 71 Bangladesh Chapter (10/14/16) TC 5.8, Industrial Ventilation and TC 9.2, Industrial Air Conditioning will be responsible for this motion.
4. **New Information Items:**
   - 1. TAC/TC/SSPC 90.1 Interface/Liaison Session – Recast for Long Beach meeting
   - 2. Report to Board of Directors for Director Strategic Initiative - Non-registrants at the winter/annual meeting
   - 3. Beta Test #11 of RPM Meetings for TCs 1.6, 2.2, 4.2, 4.5, 6.8, 7.3, 7.8, 8.4, 9.2, 9.4, 10.2, 10.3, 10.6, MTG.CCDG, and MTG.LowGWP in Las Vegas – Demands for RPM Meetings has exceeded capacity.
   - 4. PEC Recommendations for O&M Initiatives to Support ASHRAE’s New Strategic Plan - (TCs targeted to help support this effort: 1.4, 1.5, 1.6, 7.3, 7.5, 7.9, MTG.BIM
**Action Items #1** <Jokar/Todorovic> Review recommendations for O&M and provide feedback on how to move forward with the O&M Initiatives.

5. Handbook Committee is requesting our help in improving the chapter update process and quality of chapters

6. **Lower Merion Noise Ordinance** - Should TC 2.6 be asked by TAC to address what criteria a reasonable municipal noise ordinance would cover for outdoor equipment and include it in the ASHRAE Handbook?

**Action Item #2** <Meredith> Consult with TC 2.6 to address what criteria a reasonable municipal noise ordinance

7. Presidential Ad Hoc Studying if ASHRAE summer meeting format can be improved – Any Ideas / Suggestions?

8. Investigate feasibility of TC subcommittee meetings being held prior to Winter/Annual meeting – **MBO 1.2**

9. 16-17 Hightower Award recipient Paul Lindahl approved via TAC letter ballot vote of 13-0-1-2 CNV on 12/1/16 – Chair abstained - Tauby & Todorovic not voting – Plus proposed edits to award criteria. The 2016-2017 George B. Hightower Technical Achievement Award for volunteer service in the area of TC, TG, TRG and MTG activities except for research and standards was awarded to Paul Lindahl of TC 3.6 – Water Treatment and TC 8.6 – Cooling Towers and Evaporative Condensers

10. TAC Chair designates Chris Lindberg of TC 9.9 as the TAC Inter-Society Liaison to DMTF Redfish until July 1, 2018

e) **MBOs – Attachment A**

f) **Proposed plan for reducing time commitment for meetings**: Section heads prepare written report on section status, send to Mike Vaughn and TAC Chair by Tuesday, 1/31, (5:00 pm?) and then during Wednesday, 2/1, meeting only spend ~3-5 minutes each highlighting key points. Any ‘new business’ requiring committee vote will be noted and taken-up after review of each section. Will encourage similar efficiency in the reports by coordinators during the Saturday, 1/28, session. – **MBO 1.6**

**F. BOD EX-OFFICIO & COORDINATING OFFICER** (Lawrence & Graef)
Mr. Lawrence presented the EXO Report to the committee – **Attachment B**

**G. VICE CHAIR’S REPORT** (Cramm).

a) **TAC MOP & TAC Reference Manual Rewrite Approval** (Cooper Lead Discussion)

It was moved and seconded that,

(2) TAC Reference Manual be approved as indicated in **Attachment C**

**MOTION #2 – PASSED** 14-0-1 CNV

b) **Motion to recommend approval of updated TAC MOP**

It was moved and seconded that,

(3) TAC Recommends to Technology Council that the TAC MOP be revised as indicated in **Attachment D**

**MOTION #3 – PASSED** 15-0-0 CNV

**H. POTENTIAL MOTIONS READY FOR TAC CONSIDERATION INDIVIDUALLY OR AS CONSENT AGENDA**

a) **Motion to change MTG.ACR (Air Change Rate) to allow it to sponsor research projects**
It was moved and seconded that,

(4) Scope to MTG.ACR be revised as indicated below:

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 suggestions for research, 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.

MOTION #4 – PASSED 14-0-0 CNV

b) Motion to approve updated TC MOP re Website Policy & Tech Bulletins

It was moved and seconded that,

(5) TC MOP be revised as noted below.

5.11.2 TC/TG/TRGs/MTGs must ensure that all materials posted on their website meet the policy outlined in the ASHRAE document titled “ASHRAE Policy and Procedure for Format, Activity, and Content of Web Sites for ASHRAE Groups” that is posted on the Electronic Communications Committee website (https://www.ashrae.org/society-groups/committees/electronic-communications-committee). This policy covers all material that is posted on the committee website including presentations, papers and documents produced by the committee. This policy includes the directive: Which states “4.(3)f. Statements and presentations may not appear on web sites that state, purport, or imply that they present ASHRAE positions, policy, or opinions”. This policy document is posted on the Electronic Communications Committee website (https://www.ashrae.org/society-groups/committees/electronic-communications-committee).

MOTION #5 – PASSED 15-0-0 CNV

I. ROSTER COORDINATOR & CEC LIAISON – (Minor)

a) Copies of current 16-17 Rosters

Copies of all 2016-2017 TC/TG/TRG rosters plus rosters for other Society committees that TAC may need to interface with this coming year can be found in the “Rosters” folder within the “Ref. Info” folder on the TAC FTP site.

The current roster can be accessed anytime at http://ASHRAE.org/MyActiveCommittees (if you have not logged in lately, you might need to set up a new username and password). 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 every TC Chair in your Section knows how to access the roster.

b) Goals for 17-18 Rosters

TC/TG/TRG roster update workbooks, which will be used to create the 2017-2018 rosters, was e-mailed by staff to section heads for distribution to their committees in January. Section heads were asked to have these workbooks distributed to their committees by mid-December. The following tentative deadlines are proposed in order to have rosters ready for distribution to the TCs by the end of May:
Wednesday, February 1 – TCs should turn-in the first draft of their completed roster update workbook to their section head for review and approval.

February 15th to 28th - The final draft of all roster update workbooks must be approved by section head and turned into staff for processing during this period. **GOAL:** Get 95% of Rollover Rosters turned in by 2/28/16, and remainder turned in by 3/31/16

March to May – Section head works with staff and TC to finalize 2016-2017 rosters so that they can be distributed to TCs by June 1st. **GOAL:** All rosters completed and distributed with liaisons included by 6/15/16

c) Proposed Changes for Roster Update Process Next Year? – New Online Roster Update System – Pilot Testing – MBOs 1.4

d) Improve understanding of TC chairs and program subcommittee chairs about how CEC works CEC Liaison (Minor / Cramm Lead Discussion) – MBO 2.1

J. LIAISON & SPECIAL ACTIVITIES COORDINATOR (Cooper)

a) CTTC/TAC: English / Spanish translation effort underway – Ongoing maintenance plan

b) Proposed YEA Mentoring Program – TAC is exploring ways to provide mentoring for YEA members and others who want to learn more and become involved in Technical Committees and their leadership. A meeting with YEA officers is scheduled for Las Vegas to begin to flesh out a proposal

c) Write-up - Standing committee Liaisons to TCs – Tips and Suggestions for Speaking Time at Section Head Breakfast

d) TAC Inter-society Liaisons – Update list of Liaisons (Vaughn/Cooper)

e) Implement regular coordination/interface meeting at Society meetings or via web between TAC ExCOM and ExCOMs of RAC / HBC / StdC / CEC / and new RES (residential standing committee) – **MBO 1.5**

f) New & Ongoing Referrals - TC/TG/TRG Assignments or Reassignments – New PEC & MC referrals

K. TRAINING COORDINATOR (Sherber)

a) Roster Webinars for TC chairs

Staff held training webinar on how to complete the roster update workbook on January 19, 2017. A recording from a previous year’s training session is posted to the technical committee page of the ASHRAE website for reference by section heads and TC chairs at any time.

b) New Training materials for TC/TG/TRG/MTG members

1. **Webinar on How to Maintain New TC website**

   A webinar demonstrating the editing features of the new website presented by Denny Wall, contractor for the website development.

2. **Webinar on Taking & Reporting Meeting Minutes**

   A new webinar on taking and reporting the minutes has been developed and posted to the TC Training webpage along with the associated slides

c) Update on Research “How to” Training Modules

Progress has been made in developing research training modules. Slides have been developed for five of seven anticipated new modules. Modules are being designed to be no more than 15 minutes each. The completed modules have been sent to RAC for their review and/or correction. It is anticipated that all modules will be recorded and posted to RAC and TACs training sections in time for the St. Louis.

- Overview of ASHRAE Research
- The RTAR Process – Overview *(Slides completed)*
- The RTAR Process – Developing the Package *(Slides completed)*
- The Work Statement Process – Coordination and Submission *(Slides completed)*
- The Work Statement Process – Developing the WS Package *(Slides completed)*
- How to Develop a Successful RTAR or Work Statement *(Slides previously developed and posted by RAC)*
• Project Evaluation Subcommittee (*Slides completed*)
• Project Monitoring Subcommittee

d) **Training Plans for Las Vegas**
   Sunday, January 29
   9:45am – 10:45 am – Website Observations and TC/TG Roster Update Workshop
   Roman I (Prom)
   The presentation will start with a brief discussion of website issues observed while prepopulating the TC websites. The presentation will also inform the chairs about the new training webinars developed to help resolve some of the issues. Roster Update training will be the primary topic.

e) Position training and mentor assignments for new TAC members (Todorovic, Minor and Sherber) – MBO 1.7

L. **MTG SECTION HEAD** (Justice)

a) Status of MTGs
1. MTG.ACR – Air Change Rate -Status: Started June 2016.
2. MTG.ASEC – Avoided Sources Energy Consumption Due to Waster Heat Recovery and Heat Pump Technologies – Status: Started July 2015. MTG has three times since Atlanta meeting and is focusing on developing a research project work statement.
3. MTG.BD – Building Dampness – Status: Started Jan. 2014. Developing a joint research project in cooperation with cognizant health authorities, related professional societies, and building owners to develop and publish a practical, quantitative, and certain definition and inspection protocol for whole-building dampness.
4. MTG.BIM – Building Information Modeling – Status: Started April 2011
6. MTG.ET – Energy Target – Status Started June 2011. Wrapped-up work now on RP-1651 (Development of Maximum Technically Achievable Energy Targets for Commercial Buildings (Ultra-Low Energy Use Building Set)). MTG voted to disband at Orlando meeting, but has not formally notified TAC yet.
7. MTG.HCDG – Hot Climate Design Guide - Status: Started September 2013. Work continues on development of design guide. Projected end date: TBD
8. MTG.IAST – Impact of ASHRAE Standards & Technology - Status: Started September 2013. Work continues on development of design guide. Projected end date: TBD
9. MTG.ISPAQE – Indoor Swimming Pool Air Quality and Evaporation – Status: Started July 2015. Still working to finalize roster so that MTG can have kick-off meeting and begin work on research project work statement. IAQA representative was recently added to roster.

b) Other MTG Related Issues & News
1. Possible ideas for streamlined communication with MTGs - **MBO #1.3**
   i. 2nd MTG Section Breakfast Meeting planned for Las Vegas
   ii. Proposed New MTGs – New MTG proposal submitted by Pat Graef was returned for details in regards to the use of standards.

It was moved and seconded that,

(6) **MTG.CCDG**, become TRG 9.CCD, Cold Climate Design with the following title and scope
TRG9.CCD, Cold Climate Design will coordinate TC/TG/TRG technical activities to help support the technical basis, development, and publication of a “Cold Climate Design Guide” in conjunction with REHVA and SCANVAC. Responsibilities include the development of supporting research, presentations, and content for the “Cold Climate Design Guide” special publication.

MOTION #6 – PASSED 14-0-0 CNV

M. STAFF REPORT
   a) Updates, if any
   b) Brainstorming session with chair

N. SUNDAY’s SECTION MEETINGS/BREAKFAST AND REMINDERS (Bilderback)
A summary of the information items are included in ATTACHMENT E.
   a) Liaison Speaking Guidelines (TAC chair conveys to all Liaisons prior to Las Vegas) – A revised set of guidelines for liaisons visiting technical (and other) committees is included in ATTACHMENT F. These guidelines will help to make the limited time available to both the liaison and the committee more effective.

Section Head Meetings Sunday A.M. – Finalize draft agenda (see attached prelim. Draft)

O. SECTION HEAD REPORTS
Presenting highlights only from their written reports submitted Tuesday
   a) New motions that TAC must consider at this meeting from TCs in section?
      1. Proposed New TC/TG/TRGs, or Merges, or Disbands?
      2. Proposed Name and Scope Changes
      3. TBD
   b) Updates on any Special Assignments assigned to TCs in section
   c) Effectiveness of New Section Head Dashboard Tool? - MBO #1.1

**Action Item #3** <Cooper> Review the activity forms and investigate ways to consolidate the dashboard tool

   d) Effectiveness of Top TC award per section?

**Action Item #4** <Staff> Delete the TOP TC Award information from all places

   e) Improve TC Websites – Status of Websites in Section
      1. TC feedback on new template?

**Action Item #5** <Staff> Update SH Breakfast removing the item to discuss section minutes.

   f) Other Problems & Issues for TAC action or information?
      1. RPM Meeting Feedback from Las Vegas (TCs 1.6, 2.2, 4.2, 4.5, 6.8, 7.3, 7.8, 8.4, 9.2, 9.4, 10.2, 10.3, 10.6, MTG.CCDG, and MTG.LowGWP)?

**Action Item #6** <Staff> Send out web conference call details early enough in order to allow adequate time for the procedures to be reviewed

   2. TBD

O. UNFINISHED BUSINESS
No unfinished business to discuss at this time
N. NEW BUSINESS
No new business to discuss at this time

P. REVIEW NEW ACTION ITEMS
Kelley Cramm reviewed the action items with the committee and staff will distribute to TAC.

ADJOURN
<table>
<thead>
<tr>
<th>Item #</th>
<th>MBO</th>
<th>Status</th>
<th>Date Due</th>
<th>Assigned To</th>
<th>Applicable Strategy #</th>
<th>MBO Comments</th>
<th>Strategic Direction Specific Comments</th>
<th>Fiscal Impact</th>
</tr>
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<tbody>
<tr>
<td>1.0</td>
<td>Internal Management</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Monitor use and evaluate effectiveness of new TC activity reporting tool</td>
<td>TBD</td>
<td>January 2017</td>
<td>TC Section Heads</td>
<td>1A, 2A, 2B</td>
<td>Is this the right tool we need? Perhaps investigate potential alternative methods than the spreadsheet? How do we use it?</td>
<td>Efficiency</td>
<td>NA</td>
</tr>
<tr>
<td>1.2</td>
<td>Investigate feasibility of TC subcommittee meetings being held prior to Winter/Annual meetings.</td>
<td>TBD</td>
<td>June 30, 2017</td>
<td>TAC/CEC/ECC</td>
<td>1A, 2A, 2B</td>
<td>Would need to assist TCs in conducting web meetings. Does this allow for larger Program?</td>
<td>Efficiency</td>
<td>???</td>
</tr>
<tr>
<td>1.3</td>
<td>Create a streamlined communication path for MTGs</td>
<td>TBD</td>
<td>June 30, 2017</td>
<td>MTG Section Head &amp; staff</td>
<td>1A, 2A, 2B</td>
<td>Some communication vehicle needs to be developed. Internal communication, reporting to member TCs, MTG websites? Activity form?</td>
<td>Efficiency</td>
<td>Minor</td>
</tr>
<tr>
<td>1.4</td>
<td>Roll out the Roster Update system</td>
<td>TBD</td>
<td>January, 2017</td>
<td>TAC &amp; Staff</td>
<td>1A, 2A, 2B</td>
<td>Getting the annual updates to TC rosters is a major obstacle to increased volunteer participation due to complex rules, tools, and time commitment.</td>
<td>Efficiency</td>
<td>Minimal additional expense expected beyond what was done in 2014-2015</td>
</tr>
<tr>
<td>Item #</td>
<td>MBO</td>
<td>Status</td>
<td>Date Due</td>
<td>Assigned To</td>
<td>Applicable Strategy #</td>
<td>MBO Comments</td>
<td>Strategic Direction Specific Comments</td>
<td>Fiscal Impact</td>
</tr>
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</tr>
<tr>
<td><strong>1.0 Internal Management</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>In collaboration with the newly formed residential standing committee, develop plan for residential positions within TechC &amp; TAC</td>
<td>TBD</td>
<td>June 30, 2017</td>
<td>Chair &amp; Staff</td>
<td>2C, 5A</td>
<td>Define direction for residential MTGs or TCs within TAC</td>
<td>Externally focused</td>
<td>???</td>
</tr>
<tr>
<td>1.6</td>
<td>Methods to streamline the face-to-face meeting times for TAC</td>
<td>TBD</td>
<td>January 15, 2017</td>
<td>Chair working with TAC, staff</td>
<td>1A, 2A, 2B</td>
<td>Many of the volunteers who participate in ASHRAE committees are overloaded at the annual and winter meetings attending meetings. Can we decrease the required face-to-face time?</td>
<td>Efficiency</td>
<td>None</td>
</tr>
<tr>
<td>1.7</td>
<td>Review and revise if necessary the subcommittee structure of TAC</td>
<td>TBD</td>
<td>Fall 2016</td>
<td>TAC and staff</td>
<td>1A, 2A, 2B</td>
<td>Are we happy with what we have?</td>
<td>Efficiency</td>
<td>None</td>
</tr>
<tr>
<td><strong>2.0 External Relationships</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Improve understanding of TC chairs and program subcommittee chairs about how CEC works</td>
<td></td>
<td>June 30, 2017</td>
<td>TAC and staff</td>
<td>2C</td>
<td>One of the most important duties for TCs is the creation of programs for the ASHRAE meetings. Assist TCs in understanding how to get on the Program</td>
<td>Efficiency, better programs at ASHRAE meetings</td>
<td>None</td>
</tr>
</tbody>
</table>
ASHRAE UPDATE

ExO Report to Committees
2017 Winter Conference
AHR EXPO/ASHRAE CONFERENCE

- AHR Expo
  - Record breaking exhibit space anticipated
  - More than 2,000 exhibitors and 60,000 industry professionals
  - Attendees from every state in the U.S. and 150 countries worldwide
- ASHRAE Conference
  - 2,761 attendees
  - 699 committee meetings
  - 248 presentations via 331 speakers in Technical Program
ASHRAE WANTS YOU!

- Standing committee appointments sought for 2017-18
- Join President-Elect Bjarne Olesen as he works to “Extend Our Community,” through the global community, technical horizons and value to members
- www.ashrae.org/nominate
- Nominations due by Feb. 17
PRESIDENTIAL INITIATIVES – PRESIDENT’S LUNCHEON PREVIEW

▪ Internship Program – launched
▪ Chapter Opportunity Fund – funds being distributed to regions and chapters for implementation
▪ App Portfolio – expansion underway
▪ More details shared at President’s Luncheon on Monday. Don’t miss out!
NEW EDUCATIONAL COURSES

- Cogeneration from the Basics through Operation
- Complying with Standard 90.1-2016
- Complying with the Requirements of Standard 62.1-2016
- New ASHRAE-Classified Refrigerants to Meet Society’s Changing Needs
- Complying with Standard 90.1-2016 Appendix G
- Variable Refrigerant Flow System Design & Applications
- Design of Affordable and Efficient Ground Source Heat Pump Systems
NEW INTERNATIONAL MAILING

- New international mailing service to ensure faster and more accurate delivery of ASHRAE Journal
- Began with December 2016 issue
FREE ACCESS TO STBE

- ASHRAE members now have free online access to Science and Technology for the Built Environment
- Provides comprehensive reporting of original research in science and technology related to the stationary and mobile built environment
- Available using ASHRAE member login at www.ashrae.org/stbe
Recent Publications and Standards

- Standard 15-2016, Safety Standard for Refrigeration Systems
- Standard 34-2016, Designation and Safety Classification of Refrigerants
- Standard 90.4-2016, Energy Standard for Data Centers
- User’s Manuals for Standards 55 (thermal comfort), 62.1 (ventilation) and 62.2 (residential ventilation)
- Duct Size Calculator
UPCOMING PUBLICATIONS

- ASHRAE Design Guide for Cleanrooms (slated for April publication)
- ASHRAE Design Guide for Duct Systems (to be approved in Las Vegas)
- ASHRAE Design Guide for Dedicated Outdoor Air Systems (slated for June publication)
- ASHRAE Design Guide for Air Terminal Units (possible approval in Las Vegas)
ASHRAE CONFERENCES

- Second International Conference on Energy and Indoor Environment for Hot Climates, Doha, Qatar, Feb. 26-27
- Delivering Resilient High-Performance Buildings, Loughborough, UK, April 5-6 (in collaboration with CIBSE)
- Sustainable Management of Refrigeration Technologies in Marine and Off-Shore Fisheries Sectors, Bangkok, Thailand, April 6-8
- ASHRAE Webcast, Take Control: Using Analytics to Drive Building Performance, April 20
- 2017 ASHRAE Annual Conference, Long Beach, Calif., June 24-28
- ASHRAE 2017 Building Performance Analysis Conference, Atlanta, Ga., Sept. 27-29
- Second Developing Economies Conference, Delhi, India, Nov. 10-11
FORWORD

The Technical Activities Committee (TAC) is a General Standing Committee of the Society and operates under the direction of the Board of Directors and Technology Council. The Rules of the Board ROB for the Technical Activities Committee are the constitution of the committee. Proposed changes to the ROB and their appendices must be approved by the Board of Directors.

This Reference Manual is a supplement to the TAC MOP and describes in detail the methods and procedures by which the committee accomplishes the duties and responsibilities assigned to it. The Reference Manual is an internal document of the committee for its own guidance and is maintained as described in the TAC MOP. The TAC Reference Manual, and revisions thereto, shall be approved by TAC only.

YOUR COMMENTS ARE WELCOME

Submit comments or suggestions about this document electronically to the ASHRAE Manager of Research and Technical Services (MORTS).

E-mail: MORTS@ashrae.net

The MORTS will consolidate comments for TAC. TAC intends to maintain this Reference Manual as a “living document” and update it as it is needed and practical.

RECENT REVISIONS

Rewritten 2016
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CHAIR AND VICE CHAIR

1. Chair Responsibilities

1.2.1. Preside over all meetings of TAC and the TAC Executive Committee.
   1.2.1.1. Responsible for the preparation of agendas for meetings of TAC and the TAC Executive Committee with the advice of the Manager of Research and Technical Services and TAC members.
   1.2.1.2. Responsible for ensuring that the Manager of Research and Technical Services provides minutes of the meetings of TAC and the TAC Executive Committee within 30 days of the meetings.
   1.2.1.3. Ensure that all draft minutes distributed by TAC shall include the following notice on the bottom of the cover page: “These draft minutes have not been approved and are not the official, approved record until approved by this committee.”

1.2.2. Appoint committee Chairs as detailed in the TC/TG/TRG/MTG Manual of Procedures

1.2.4.1. MTGs are expected to have a finite term within which to complete their assigned task. MTG Chairs and Vice Chairs are reappointed each year and there is no limit on the consecutive terms served, but the reappointment should only be made if it serves the best interest of the Society and the member is willing to serve.

1.2.5. Voting members of an MTG shall be reappointed each year if willing to serve and endorsed by the chair/leader of the TC or non-TC group they represent, and there is no limit on the consecutive terms served. The reappointment, however, should only be made if it serves the best interest of the Society and the TC or non-TC group represented.

1.3. With the assistance of the Manager of Research and Technical Services, the Chair shall prepare and submit to the Technology Council and the Board of Directors, through the Executive Vice President, a semi-annual report, an annual report, and such other reports as are required to be submitted to the Board.

1.2.6.1. The Chair shall submit a written or an oral report at the fall meeting of Technology Council.

1.2.7. The Chair shall be responsible for providing information to Society members to publicize the activities of the Technical Committees, Task Groups, Multidisciplinary Task Group, and Technical Resource Groups; and other items of current significant interest concerning the operation of TAC. The chair normally works with the MORTS to prepare and distribute relevant information. This is done at least 2 times per year in advance of the winter and annual meetings.

1.5. A status report on the objectives shall be included in the semi-annual report submitted to the Technology Council at the Society Winter meeting. A final report of the objectives shall be included in the annual report submitted to the Technology Council at the Society Annual meeting.

1.6. Thank retiring TC/TG/TRG/MTG Chairs for their services.
2. **Vice Chair Responsibilities**

2.1. **Responsible for seeing that the budget of TAC is prepared.** Details of the budgeting process are presented in Appendix C (Calendar/Process for Budget/Four-Year Plan) of the Technology Council MOP.

2.1.1. Periodically, the Vice Chair shall reviews, with the Manager of Research and Technical Services, expenditures and budget allocations and shall take any action deemed necessary, in cooperation with the Executive Vice President and the director of Technology, to stay within the established budget.

2.2. **Appoint mentors for all incoming TAC members** and oversee the mentoring of new members according to the guidelines given in Appendix A.

2.3. No later than 30 days prior to the Annual and Winter Society meetings, the Vice Chair shall prepare and distribute a draft list of reminders about upcoming activity deadlines and deliverables to Section Heads to edit and then distribute to TC, TG, MTG, and TRG Chairs.

2.4. Within 30 days after the Annual and Winter Society meetings, the Vice Chair with assistance from Section Heads and TAC ExCom, shall prepare and distribute a TC Activities Summary Report to TAC members.

2.5. **Perform other duties that may be assigned by the Chair.**

2.6. **He liaison with the Research Administration Committee (RAC).**

2.7.2.6. Prior to the Society Annual meeting, the Vice Chair shall prepare objectives for the committee for the next year using the format given in Appendix B. The Vice Chair shall and present these objectives to TAC for review and approval at the Society Annual meeting.

2.7.2.6.1. Each objective should be measurable and should include a projected completion date, fiscal impact, and other information that would clarify the intent of the objective.

2.7.2.6.2. The objectives will be included in the TAC annual report to the Technology Council at the Society Annual meeting as an information item, and a copy of the objectives will be sent to headquarters staff (Assistant to the BOD).

2.7.3.2.6.3. Staff (Assistant to the BOD) will send copies of objectives to the BOD Ex Officio, TAC staff liaison and Technology Council staff liaison. Staff liaisons will send objectives to TAC and Technology Council members.

3. **Membership**

3.1. The members of the Technical Activities Executive Committee include the TAC Chair, the TAC Vice Chair, and the TAC Coordinators. An approximate size of TAC ExCom has not been determined. Current committee members include (names to be filled in).

EXECUTIVE COMMITTEE (TAC ExCom)
3.2. The following Ex-Officio members of the Technical Activities Executive Committee may participate in the discussions but are not eligible to vote:

3.2.1. Manager of Research and Technical Services
3.2.2. Director of Technology
3.2.3. Board Ex Officio
3.2.4. Coordinating Officer

5.4. Meetings

5.4.1. The Technical Activities Executive Committee shall normally meet before the first scheduled meetings of TAC at the Annual and Winter Meetings of the Society.

5.4.2. Executive Committee meetings are open to all members of TAC, all Society members, all registered guests at scheduled Society meetings, and those invited by the Chair and subject to Robert’s Rules of Order. If an official ‘Executive Session’ is required, only members of the Executive Committee are allowed in the meeting and all others shall be asked to leave by the Chair for the duration of that portion of the meeting.

5.4.3. Special Meetings of the TAC Executive Committee may be called by the Chair whenever appropriate to conduct the business of the committee between the winter and annual meetings.

5.4.4. The Chair is responsible for ensuring that a written notice of a meeting is sent to all members, ex-officio members, members of TAC and invited individuals and that proper notification is provided according to the rules for open meetings unless an executive session is specifically called.

5.4.5. The Chair shall report actions and recommendations of the Executive Committee at the next meeting of TAC.

Commented [KC7]: TAC has never used consultants, this is boilerplate - eliminate

Commented [KC8]: The Chair should be able to have an ExCom electronic meeting anytime they want or need without asking permission but travel for excom members should be approved.
COORDINATORS

6.5 Coordinator Selection

6.5.1 The TAC Chair appoints coordinators as described in the TAC MOP.

6.5.2 If a member’s term of service on TAC continues into the next Society year, they may be reappointed by the incoming Chair.

6.5.2.1 Coordinators should be members of TAC. However, the Chair may appoint Consultants to Coordinators who are not members of TAC when there is a need for members who have expertise and experience in certain areas that are of immediate importance and not available from TAC members.

6. Operations Coordinator (OC) Responsibilities

6.2 The TAC MOP and Reference manual have been extensively revised to bring them up to date with current practice. Items have been moved from the MOP to the Reference manual as appropriate and duplication between documents eliminated where possible. Promote interaction between TC/TG/TRG/MTGs and other ASHRAE Standing Committees and Councils through members designated by those committees or councils. Attends meetings of other Standing Committees and Councils at the Winter and Annual Society meetings as needed.

6.2.4.6.1.1 Liaison should be maintained with (but not limited to)

6.2.5.6.1.2 Standards Committee

6.2.6.1.3 Handbook Committee

6.2.7.6.1.4 Chapter Technology Transfer Committee

6.2.8.6.1.5 Research [Administration] Committee

6.2.9.6.1.6 Any councils? PubC – this is mostly Hbk, MemberC–mostly CTTC, TechC – covered by Chair. Probably these should be by specific invitation only when requested by the Council.

6.3.6.2 Prior to each Winter and Annual Society meeting, provide a summary about TAC and its underlying committees with information that may be of interest to those committees and councils.

6.4.6.3 Coordinate activities involving technology transfer from, TC/TG/TRG/MTGs to the rest of the Society and the HVAC industry through members designated by those committees or councils. A report summarizing these activities shall be submitted to TAC at the Annual Society meeting.

6.5.6.4 Improve technology transfer from TCs to chapters through program, handbook, standards, research and other means as required.

6.6.6.5 Research continued improvements to electronic communications such as website enhancements and collaboration tools. With Electronic Communications Committee advice, review, recommend to TAC and oversee implementation of methods for improving...
6.7.6.6. Review, recommend and oversee implementation of periodic updates and changes to the TC/TG/TRG website template

6.8.6.7. Annually review and recommend changes to ASHRAE website policies that apply to TAC and TC/TG/TRG/MTGs for the Electronic Communications Committee consideration and implementation.

6.9.6.8. Coordinate the identification, development, and maintenance of other resources as needed to assist TAC members and TC/TG/TRG/MTG Chairs in carrying out their responsibilities.

6.9. Review and propose changes to the TAC MOP, Reference Manual and ROB as directed.

6.9.1. Maintain the reference manual procedures as described in the TAC MOP.

7. Training Coordinator (TrC) Responsibilities

6.10.7.1. Work with ASHRAE staff to implement approaches which improve access to TC training

6.11.7.2. Develop and present training for incoming TAC members

6.12.7.3. The content of and material used for the training session shall be prepared by the TrC in cooperation with the OC and shall be reviewed by TAC

6.13.7.4. Identify training needs to support successful TC operations and conduct training sessions at the Annual and/or Winter meetings for TC/TG/TRG/MTG Chairs and Vice Chairs.

6.14.7.5. The TrC or an individual appointed by the TrC shall lead the training sessions.

6.15.7.6. In cooperation with the Operations Coordinator and the affected committees, prepare information suitable for technology transfer.

6.16.7.7. Continued expansion and maintenance of new On-line training portfolio

6.17.7.8. In cooperation with the Director of Marketing and as appropriate, work with liaisons of other committees (and Operations Coordinator) to develop, maintain, and disseminate presentation material that describe the functions and responsibilities of the technical committees and addresses technical issues in response to inquiries by Society members and the public.

7.9. Coordinate the maintenance of the TAC website with the Manager of Research and Technical Services.

8. Membership Coordinator (MC) Responsibilities

Commented [KC11]: I (think it would be useful to have technology transfer items be more complicated than a single sentence and may need some explanation to be effective. Transfer happens when the accepting committee understands what and why.)

Formatted: Font color: Auto

Commented [KC12]: NOT SURE WHAT TO DO WITH THESE THINGS. THEY ARE IMPORTANT ALTHOUGH NOT NECESSARILY LONG TERM.

Cynthia
MTGs:
1) Review/improve the MTG activity form used for reporting back to TAC.
2) Develop a formal requirement or methodology for MTG members to report back to their liaising TCs.
3) Improve the MTG website content to do a better job of reporting their responsibilities/activities to the intended audience (ASHRAE members?)

Section Head dashboard tool
1) The tool was developed to help Section Heads report back at each meeting and, over a longer timeframe, to spot trends and problems. There needs to be a formal assignment to review the past tools (once a year? 18 months?) to spot trends and problems at both the TC and Section levels.
2) As mentioned, perhaps find a different architecture method for the dashboard tool rather than Excel.
8.1. Identify and assist TC/TG/TRGs with difficulty getting/retaining membership to improve their breadth of membership and committee operation.

8.2. Assist TC/TGs in finding volunteers or groups to help maintain/update Handbook volume chapters that are not being properly maintained.

8.3. Monitor, evaluate and develop improvements to coordinate the annual TC/TG/TRG/MTG roster update process and improvements thereto. Testing and Roll-out of New On-line roster update system.

8.4. Identify and implement activities that improve the ability of TCs to attract and develop new membership not just recycle the old ones.

8.5. Maintain and refine the criteria and forms for the outstanding TC award so that they help the TCS to become better. Review the results in cooperation with the Section Head to identify and improve the performance of all committees under TAC purview.

8.6. Oversee improved quality, process efficiency, and expansion of RPMs (Remote Participation in Meetings) – Opens ASHRAE up to the world.

8.7. Liaison with Conferences and Expositions Committee (CEC) to coordinate improvements between the TC/TG/TRG/MTGs and CEC.

8.8. Coordinate the maintenance/development of criteria and yearly award selection for the George B. Hightower Technical Achievement Award based on the procedures described in Appendix D.

8.9. Coordinate the development and application of procedures for reviewing technical content in Society publications in cooperation with other committees as appropriate.

8.10. On a regular basis, work with staff to quantify the impact that TCS have had within ASHRAE and to society as a whole by quantifying, for example, the amount of volunteer time that is devoted to TC work each year. Convert those estimates into a dollar amount when practical.

7.9. Other Responsibilities

9.1. The Coordinators shall report their activities and make recommendations for action as needed at the appropriate point in the agenda of the TAC meeting.

9.2. Before each meeting, in cooperation with the Operations coordinator, staff will provide each liaison to TAC from another committee and all section heads a copy of the “Liaison speaking guidelines” found in Appendix C.

SECTION HEADS

8.10. Organization

8.10.1. Sections are groups of TCs, TGs, MTGs, and TRGs that have been formed and organized by TAC according to fields of interest or for administrative purposes.

8.10.2. The TCs, TGs, MTGs, and TRGs are currently grouped into eleven (11) Sections based on their technical scopes as follows:

SECTION 1.0, FUNDAMENTALS AND GENERAL
9.11. **General Responsibilities**

9.1.11.1. **Coordination and liaison**


9.1.1.11.2. The MTG Section Head is responsible for the coordination and development of the activities of the MTGs within their Section and shall provide liaison between them and TAC. The MTG scope may also involve interactions with other Standing Committees and Councils, and those interaction activities shall be managed by the MTG Section Head and reported through TAC to Technology Council.

9.1.2.11.3. The Section Head shall represent the interest of their Section to TAC and shall be responsible for ensuring that their opinions and views are made known.

9.1.3.11.4. The Section Head shall arrange for spokespersons, when requested, to represent TC/TG/TRG/MTGs before TAC.

9.1.4.11.5. The Section Head shall establish and maintain contact with liaisons of TC/TG/TRG/MTGs.

9.1.5.11.6. The Section Head shall require that each TC/TG/TRG in their Section have, as a minimum, subcommittees and subcommittee chairs on Research, Program, Handbook, and Standards. MTGs are excluded from this requirement, unless their scope specifically includes one of these responsibilities.

9.1.6.11.7. Prior to August 1 of each Society Year, each Section Head should furnish the TAC Chair with a list of individuals that they recommend to be considered for appointment to TAC.
10.12. Specific Responsibilities

12.1. The MTG Section Head promotes interaction between identified technical groups outside ASHRAE and ASHRAE TC/TG/TRG/MTGs through members designated by those organizations. Attends meetings of these organizations at the Winter and Annual Society meetings when possible.

12.1.1. A list of organizations outside ASHRAE that we maintain contact with is kept by MORTS. Some of them are:

12.1.1.1. USNC/IIR
12.1.1.2. Nuclear HVAC Users Group
12.1.1.3. Building Smart Alliance

12.1.2. Prior to each Winter and Annual Society meeting, provide a summary of TAC and its underlying committees with information that may be of interest to the organizations.

12.1.2.1. As needed, the Section Head shall assist the TC/TG/TRG/MTG Chairs in their Section to carry out their assigned responsibilities.

12.1.3. No later than February 28 each year, using the roster update process described in E4.3, the Section Head shall furnish to the Administrative Assistant for Research and Technical Services a list of individuals that they recommend to be appointed as members of the TC/TG/TRG/MTGs in their Section.

12.1.3.1. Each Section Head, before finalizing their recommendations, shall consider all the factors associated with the position of member of a TC/TG/TRG/MTG to ensure that the persons they recommend will serve in the best interest of the Society. The MTG Section Head will also consult with the chairs/leaders of the TCs and TGs and non-TC groups that are represented on the MTG to confirm that the TC, TG or non-TC group endorses their designated representatives on the MTG.

12.1.4. Each year, the Section Head shall review rosters prepared by TC/TG/TRG/MTG Chairs in their section to verify that the rosters comply with the provisions of Part 2, Membership, of the TC/TG/TRG/MTG MOP. The importance of a correct roster cannot be overemphasized: no official committee work can be carried out without a roster, and much committee work could be invalidated if voted on by an improperly constituted committee. The roster update procedure is as follows:

12.1.4.1. Each year prior to the Winter Meeting, staff shall send a “Roster Update Form” to each TC/TG/TRG/MTG Chair. The forms are to be completed and e-mailed to the Section Heads no later than 9:00 PM on Tuesday of the Winter Meeting.

12.1.4.2. The Section Head shall review the forms submitted by each Chair in their Section to ensure that the conditions for TC/TG/TRG/MTG membership given in the TC/TG/TRG/MTG MOP are met. If changes are required, the Section Head shall work with the TC/TG/TRG/MTG Chair to correct the information on the forms until both the TC/TG/TRG/MTG Chair and Section Head approve the information. The Section Head shall then send the approved forms to the
Administrative Assistant for Research and Technical Services no later than February 28.

10.4.3.12.4.3. Staff shall create the rosters for the next Society year and send a first draft to the Section Head. The Section Head shall review the draft roster against the input that was provided in the approved Roster Update Form. Corrections shall be sent to staff within two weeks. If no changes are necessary, the Section Head must so indicate. These procedures are repeated until each Section Head has indicated that no further changes are necessary.

10.4.4.12.4.4. After each Section Head has indicated to staff that the roster has the correct information staff shall send appointment letters to each TC/TG/TRG/MTG member with a copy of the roster for the upcoming Society year. Roster changes after this time must be made using the Emergency Roster Change Procedures and be approved by the Section Head.

10.5.12.5. No later than 30 days prior to the Technology Weekend meeting of TAC, the Section Head shall review the title, scope, and activities of each TC, TG, MTG and TRG within their section and shall make recommendations to TAC on continuing, merging, or disbANDING existing committees, forming new committees, or altering scopes to fulfill the needs of the Society in the areas of responsibility of their Section.

10.6.12.6. For each TAC meeting, the Section Head shall prepare a written or oral Section Head report of actions, problems, and concerns from the TC/TG/TRG/MTGs in their Section to be included in the TAC meeting minutes.

10.7.12.7. The Section Head or designee shall preside over their Section meeting with TC/TG/TRG/MTG Chairs and Vice Chairs at the Annual and Winter Society meetings. The Section Head shall contact the TC/TG/TRG/MTG Chairs and Vice Chairs at least 30 days before the Section meeting to remind them to attend. (Guidelines for conducting the Section Meetings are given in Appendix C).

10.8.12.8. The Section Head shall ensure that each TG/TG/TRG/TRG in their Section distributes its meeting agenda at least 30 days before each Annual and Winter meeting, and that the minutes are distributed within 60 days following each meeting.

12.9. The Section Head shall periodically review TC/TG/TRG websites in their Section for violations of ASHRAE website policies and to ensure that the websites reflect current activities. The Section Head shall communicate website violations and needs for improvement to the TC/TG/TRG Chair.

10.9.12.10. Information on the current activities of MTGs will be posted to a section of the ASHRAE website and will be reviewed periodically by the MTG Section Head to ensure the information is up-to-date, accurate, and complete.

10.10.12.11. The Section Head shall present a certificate of appreciation to each retiring TC/TG/TRG/MTG Chair in their Section at the Annual meeting. (see B2.6.2)

12.12. Each TAC Section Head annually reviews all eligible technical committees in their section and select a recipient from their section for the Outstanding TC Award based upon the procedures outlined in Appendix F of the TC/TG/TRG MOP. Report the results to the Membership Coordinator for review and improvement of the process. Inform MORTS so that a proper certificate can be generated.
12.13. Each Section Head informs their committees and solicit nominations for the Hightower Award following the Annual meeting to be submitted to TAC for consideration before September 1 of each year as described in Appendix D.

ANCILLARY RESPONSIBILITIES

11.13. TAC reviews all requests or suggestions for new awards, revisions to current awards, or award deletions according to the guidelines for awards outlined Appendix E. In order to minimize the entire committee time, it is suggested that a subcommittee of one or more TAC members be established by the TAC Chair to consider the request and report to TAC for a formal disposition of the request.


14.1. When the publication requires a broader peer review by members of other TC/TG/TRG/MTGs per the broad peer review procedure described in Appendix F of the TC/TG/TRG/MTG MOP, the TAC Chair shall:

14.1.1. Ensure that all committees and members under TAC’s purview are notified of the proposed publication through staff action.

14.1.2. In consultation with the Section Heads, shall identify one or more TC/TG/TRG/MTGs who should participate and assign participation/review responsibilities to them if necessary.

14.1.3. Arrange for a TAC vote on the proposed publication if recommended by the working group and the review committee.

14.2. The Section Head(s) involved work with the identified committees to obtain representation on the special publication working group from each identified committee.

14.3. The Section Head of the sponsoring committee works with the Chair of that committee to appoint the members of the working group from those identified.
APPENDIX A Mentoring Program

Based on ROB Mentoring program

Before or during the final meeting of the Fiscal Year, the TAC Vice Chair shall appoint an incumbent to be the mentor for an incoming member. A mentor should be appointed for each new member.

1. Assigns an incumbent TAC mentor to each incoming new member prior to the first meeting.
2. Assures that time is allotted at the beginning of the first meeting sufficient for proper introduction of the new member by the assigned mentor.
3. Before the Annual meeting and in cooperation with the Chair, assesses effectiveness of the mentor/new member relationship and suggest changes and improvements.
4. Provides assistance that enhances the mentor/new member relationship.

The mentor will have the following responsibilities:

- Insure that the new member has received a copy of the group Rules of the Board (ROB), Manual of Procedures (MOP), and a copy of the most recent meeting minutes to acquaint them with the functions and focus of the group.
- Before the next meeting of a Board of Directors/Board of Governors, Council or Committee Meeting, the mentor should contact their assigned new TAC member by telephone, letter, fax or e-mail to introduce themselves and explain the new relationship and its purpose.
- The mentor should make every effort to update the new member on:
  1. Committee functions, focus and objectives.
  2. Review the appropriate Rules of the Board and Manual of Procedures (MOP) with the new member.
  3. Discuss the typical meeting format and member duties and responsibilities.
- The mentor should plan to meet the new member before the respective meeting is scheduled to start.
- The new member should be encouraged to develop rapport with other members to effectively work with fellow members and maximize productivity.
- Since the new member will replace an existing section head or coordinator, help them to contact the outgoing member to insure that the new member is current on the activities and challenges of the position they will be representing.

Completion date: The relationship terminates at the end of the new member's first year as a member of the group TAC.
APPENDIX B – Management by Objectives

The objectives are shown on an MS Word document that is provided to the Committee Chair and Vice Chair. The following is an example of the information currently required.

### TAC MBOs

Technical Activities Committee MBOs 2015-2016

Tom Lawrence, Chair

1/23/2016

<table>
<thead>
<tr>
<th>Item #</th>
<th>MBO</th>
<th>Status</th>
<th>Date Due</th>
<th>Assigned To</th>
<th>Applicable Strategy #</th>
<th>MBO Comments</th>
<th>Strategic Direction</th>
<th>Specific Comments</th>
<th>Fiscal Impact</th>
</tr>
</thead>
</table>

- List objectives, **not action items or ongoing committee activities** such as updating the committee's MOP.
- State objectives in clear, concise, measurable language. If necessary, cite sub-tasks and interim steps as a means of measuring objective completion.
- Cite both the completion dates for the overall objective as well as individual sub-tasks.
- State fiscal impact in dollars, man-hours, or man-trips. State whether the program has been approved by the council and whether it is cost has been included in the budget.
- State the primary responsible individual, subcommittee, or body.
- Report a brief but complete statement of status. Cite completion date if objective is fulfilled.
APPENDIX C - OPERATIONAL GUIDELINES FOR SECTION MEETINGS

1. Each TC/TG/TRG/MTG chair and Vice Chair shall meet with their Section Head at each Annual and Winter meeting. The meeting rooms are listed in the program, and are usually held from 6:30 AM to 8 AM on Sundays.

2. The purpose of the Section meeting is to provide an opportunity for personal communication between the TC/TG/TRG/MTG Chairs and their Section Head on technical and administrative issues facing their section and/or the Society. Liaison members of other standing general committees will also have an opportunity to distribute written announcements to address administrative matters relating to TC/TG/TRG/MTG activities. Liaisons may wish to speak only at the end of the meeting, if time permits, may do so at the invitation of the Section Head and in accordance with the Liaison Guidelines dated January 10, 2016.

3. The Section Head shall invite the TC/TG/TRG/MTG Chairs and Vice Chairs to the meeting.

4. The Section Head should conduct the meeting in the same way that he or she would conduct a TC meeting, with the Section Head serving as Chair, the Chairs serving as voting members, and Vice Chairs serving as corresponding members of the committee. One member shall be designated as Secretary and shall prepare and distribute minutes to summarize the discussion and document specific actions assigned for the next meeting. A quorum shall consist of a majority of the voting members.

5. The Section Head shall send out the Section meeting agenda at least 30 days before each Annual and Winter meeting, and the minutes (with attachments) within 60 days following each meeting.

6. The Section Head, in collaboration with the TC/TG/TRG/MTG Chairs and Vice Chairs, shall identify Section MBOs for the upcoming year and introduced them at the Annual meeting.

7. Suggested agenda:

   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 (35 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 (20 minutes).

a.8. Identify shared opportunities and challenges for section (10 minutes).

a.9. Distribute written information and requests for action from TAC and standing committee liaisons (10 minutes).

a.10. 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 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.

a.11. Adjourn.
Liaison speaking guidelines.

Liaisons,

Whether you are attending a TAC Section Breakfast or a Technical Committee meeting, your primary task is to be sure that the committee understands what the most important information your committee wants this committee to know and to do it in the most effective way possible. The following guidelines will insure that you are successful and that you continue to have a cordial relationship.

1. INFORM the Section Head or Committee Chair in advance (if possible) that you will be attending and if you have specific time limitations for attending (such as you need to leave by XX:XX).
2. Before the meeting starts, BE SURE YOU TELL the Section Head or Committee Chair who you are, that you are available, wish to speak (if you do) and other responsibilities during the same time frame so that you can be recognized appropriately without interrupting the meeting as agendas are usually tight during the meeting. Committee Chairs recognize that you probably have other meetings you attend at the same time and they are always willing to make as much accommodation as they can without totally disrupting the meeting. However, you are probably not the most important thing on the agenda or your presence would have been requested in advance.
3. PROVIDE an electronic copy of the written material to the Committee Chair(s) and/or Secretary so that your information can be included in their documentation. You may also bring the written material to the breakfast or committee meeting.
4. DO NOT READ any written material you bring. All of our committee members can read.
5. BE PREPARED to summarize the 3 most important points. The rest can be read when the committee member gets a chance. This will keep your presentation brief, efficient and highlight the most important things you need to be sure everyone hears.
6. PLAN on your presentation taking no longer than 2 – 4 minutes exclusive of discussion or questions by the group. If the Section Head or Committee Chair wants to entertain discussion or questions, it is their choice.
7. If you are a new liaison to the section or committee, leave your contact information with the Section Head and Committee Chair(s) or Secretary.
8. Sign the attendance sheet.
APPENDIX D - PROCEDURE FOR GEORGE B. HIGHTOWER TECHNICAL ACHIEVEMENT AWARD

1. PURPOSE.
The purpose of the George B. Hightower Technical Achievement Award is to recognize annually an individual for excellence in volunteer service in the area of TC/TG/TRG technical leadership and contribution, which includes all TC, TG MTG, and TRG activities except for research and standards. The award will serve to heighten general membership awareness of, and interest in, Society activities at the TC/TG/TRG level.

George B. Hightower was an exceptional ASHRAE member. A member since 1938, he regularly attended Society meetings until his health began to fail. No other person has received more Society level awards than George B. Hightower. He received the ASHRAE-Alco Medal for Distinguished Public Service in 1974; became an ASHRAE Fellow in 1977; received the Distinguished Service Award in 1984; the Distinguished 50-Year Member Award in 1988; the Andrew T. Boggs Service Award in 1997; and the Louise and Bill Holladay Distinguished Fellow Award in 2000.

2. AWARD PRESENTATION.
The George B. Hightower Technical Achievement Award shall be presented annually but may be omitted if a suitable candidate is not identified. The award will consist of an acrylic trophy with the recipient’s name and the year of the award etched into the face of the trophy. The award will be donated by the Atlanta Chapter, to which Mr. Hightower belonged.

3. ELIGIBILITY.
The award is open to ASHRAE TC/TG/TRG voting and corresponding members who meet the minimum point requirements detailed in Section 7. Technical Activities Committee (TAC) and Technology Council members or current TC and TG chairs of the nominating committee(s) are not eligible for receipt of the George B. Hightower Technical Achievement Award during the terms they serve on the respective committees, or positions. Past recipients of the award are not eligible.

MTGs participate in the George B. Hightower award through one or more of the TCs/TGs that comprise the MTG.

4. NOMINATION.
A nomination for the George B. Hightower Technical Achievement Award is made by a TC/TG/TRG chair completing a nomination form that confirms the eligibility and outlines the special contribution that the nominee has made to the work of the nominating committee(s) during the most recent four years.

The chair submits the nomination to the lead nominating nominee’s committee’s TAC Section Head by September 1.
5. JUDGING

The TAC Section Head reviews all nominations received from their Section and forwards eligible nominees from that Section to TAC for its consideration at their Fall Meeting. Prior to the ASHRAE Winter Meeting, TAC shall recommend a candidate to the Honors and Awards Committee. The recommended candidate shall be chosen from all nominations that meet eligibility requirements as outlined under Section 7 Criteria for Selecting Recipients and approved by TAC. TAC shall consider award points and the explanation provided by the nominating TC/TG in its deliberations. TAC should also review the candidate’s ASHRAE online bio for verification of points.

Because it is a ‘pass through award’, TAC reports the name of the recipient to Technology Council as an information item and sends the recommendation to H&A who in turn recommends the name to Members Council for approval.

All nominators (not just the winning nomination) are to be apprised of the person selected by the TAC chair no later than 60 days after the selection process has been completed.

6. PRESENTATION

During the ASHRAE Annual Meeting, the George B. Hightower Technical Achievement Award is presented during the recipient’s TC/TG/TRG meeting.

7. PART I - ELIGIBILITY POINT REQUIREMENTS

7.1 Nominees must have earned a minimum of 10 points during their career on TC/TG/TRG/MTGs as defined below to be eligible for the award.

7.2 If eligible, the award is given based only on the most recent four years of service on TC/TG/TRG/MTGs. This service must be detailed in the explanation for it to be considered and is the actual basis for receiving of the award.

While this award is given on the basis of service during most recent four years, nominees must have earned a minimum of 10 points for career service on the nominating TC/TG.

Eligibility points are defined as follows:

A “tour” is an appointment for 1 year. Assignment to the same position for multiple years each count as a separate tour.

A. Program Subcommittee
   1. Forum Moderator ½ point per forum
   2. Seminar Chair 1 point per seminar
   3. Conference Chair 2 points per session
   4. Symposium-Technical Chair 3 points per sympos

B. Handbook Subcommittee
   1. Chapter contributor/reviewer 1 point per chapter

Commented [KC32]: The latest ROB says that Tech Council does this, 2.411.003.5 Award Programs part C. suggested change to ROB to Mary Townsend. According to Mary this will happen.

Commented [KC33]: By whom?? I suggest that TAC chair do it.
2. Chapter *author* 3 points per chapter
3. Subcommittee member 1 point per tour
4. Subcommittee Chair 2 points per tour

C. **Technical Inquiries**
1. Respond to Question from Headquarters 1/4 point per question
2. Author Frequently Asked Question 1 point per question
3. Author Technical Bulletin 3 points per Bulletin

D. Accept Special Assignment from Chair Up to 3 points per assignment at Chair’s discretion.

E. **TC/TFG/MTG/TRG Officers**
1. ALI Coordinator 2 points per tour
2. Webmaster 2 points per tour
3. Member Non Quorum 2 point per tour
4. Secretary 2 point per tour
5. Vice-Chair 2 point per tour
6. Chair 3 points per tour

F. MTG member 1 point per tour

F.G. Inter-Society Liaison Appointed by TAC 1 point per tour

The form (HightowerAwardEligibilityForm_fillable_20161121.pdf) can be found on the ASHRAE website at ".

8. **PART II – TECHNICAL LEADERSHIP AND CONTRIBUTION**

   This part determines the actual award winner.
   Provide a one page explanation of the nominee’s outstanding technical leadership and contributions to the committee(s) during the past four years including details on why you think this person deserves the award. (Research and standards activities are NOT to be considered even if done as part of a committee assignment.)

SUBMIT NOMINATION FORM TO SECTION HEAD BY SEPTEMBER 1.
ASHRAE GEORGE B. HIGHTOWER TECHNICAL ACHIEVEMENT
AWARD NOMINATION FORM

In recognition of exceptional service in the area of technical leadership and technical contribution in the past four years.

TC/TG/TRG________ Society Year________ Submission Date ______________

Nominee’s Name ________________________________________________

Nominee’s Committee Position_____________________________________________

TC/TG/TRG Chair Name ________________________ Signature _______________________

• Nominees must have earned a minimum of 10 points during their career on
TC/TG/TRG/MTGs as defined below to be eligible for the award.
• If eligible, the award is given based only on the most recent four years of service on
TC/TG/TRG/MTGs. This service must be detailed in the explanation for it to be
considered and is the actual basis for receiving of the award.

Part I - confirms the eligibility of the nominee.

A. Conferences and Expositions Subcommittee
1. Forum Moderator (½ point per forum)     Points: _______
2. Seminar Chair (1 point per seminar)     Points: _______
3. Conference Chair (2 points per session)     Points: _______
4. Technical Chair (3 points per session)     Points: _______
5. Subcommittee member (1 point per tour)    Points: _______
6. Subcommittee Chair (2 points per tour)     Points: _______

B. Handbook Subcommittee
1. Chapter contributor/reviewer (1 point per chapter)   Points: _______
2. Chapter author (3 point per chapter)     Points: _______
3. Subcommittee member (1 point per tour)    Points: _______
4. Subcommittee Chair (2 points per tour)     Points: _______

C. Technical Inquiries
1. Respond to Question from Headquarters (1/4 point per question)  Points: _______
2. Author Frequently Asked Question (1 point per question)   Points: _______
3. Author Technical Bulletin (3 points per Bulletin)  Points: _______

D. Accept Special Assignment from Chair (up to 3 points per assignment at Chair’s discretion)

E. TC/TG/MTG/TRG Officers
1. ALI Coordinator 2 points per tour     Points: _______
2. Webmaster (2 points per tour)      Points: _______
3. Member Non Quorum (2 points per tour)     Points: _______
4. Secretary (2 points per tour)      Points: _______
4. Vice-Chair (2 points per tour) Points: ______
4. Chair (3 points per tour) Points: ______
E. Inter-Society Liaison Appointed by TAC (1 point per tour) Points: ______
0. G. MTG Member (1 point per tour) Points: ______

**Part II - determines the actual award winner.** Provide below an explanation (approximately one page) of the nominee’s outstanding technical leadership and contributions to the committee during the past four years, excluding research and standards activities. SUBMIT NOMINATION TO SECTION HEAD BY SEPTEMBER 1.
APPENDIX E - GUIDELINES FOR AWARDS

All requests or suggestions for new awards, revisions to current awards, or award deletions shall be forwarded to the Honors and Awards Committee for review and recommendation before being forwarded to the BOD for review and approval.

ASHRAE awards are grouped into the following categories, each of which has their defined forms of award:

1. Personal Honors
2. Personal Awards for General Society Activities
3. Personal Awards for Specific Society Activities
4. Paper Awards
5. Society Awards to Groups or Chapters

Awards will normally carry the name of an ASHRAE activity (e.g., Distinguished Service Award, Fellow, Journal Papers Award) No business, product, or commercial name shall be used for an award. Only in very exceptional instances may consideration be given to naming the award for an individual member.

Proposers of awards shall submit a detailed description, including the name of the award, the suggested category for the award, the reason for establishing the award, and the proposed selection and awarding process to the Honors and Awards Committee.

Proliferation of awards that would tend to detract from the worth of existing awards must be avoided. The award must first be considered as applying to an important field of ASHRAE related activity; the name of the award would then add prestige.

The committee shall include in their supporting material for candidates only information pertinent to the requirements for the particular award for which the candidate is being recommended. (70-07-01-11)

It is the policy of the Society not to consider for approval any Society honors or awards posthumously, other than the Hall of Fame.
APPENDIX F - ASHRAE Outstanding Technical Committee Award

1. PURPOSE
The purpose of the Outstanding Technical Committee 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 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 as shown in Table 1. The award will serve to heighten TC Chair and committee member awareness of what activities are valued, encourage improved performance, and foster friendly competition between TCs within a Section.

2. PRESENTATION
The ASHRAE Outstanding Technical Committee Award will be presented annually by the Section Head at the Winter Section Breakfast to the TC which had the highest measured performance for the preceding year within that Section. The Chair of the TC during the performance year will be the recipient of the award. Each Section will have one annual award.

3. ELIGIBILITY
The award is open to all TCs which have had a quorum at both the Winter and Summer Society Meetings and have conducted business with the established rules and regulations set forth in the TC MOP. Past recipients of the award are eligible.

4. NOMINATION
Each Section Head will calculate the performance of all of the Section TCs at the end of the Society Year based upon the criteria in Table 1. In the event of a tie, the Section Head will decide which TC is nominated based on his or her impressions of overall excellence. Nominations for the award will then be presented during the Fall TAC meeting and voted on by the entire TAC membership.

5. JUDGING
This award is points-based as shown in Table 1, thus the selection will be primarily objectively based. The Section Head will have the discretion to add no more than 20 points to a TC which has either demonstrated consistent effort to improve performance or provided a special contribution to the Society during the year. When applicable, criteria under “Other TAC Initiatives” will be discussed at the Section Breakfast and then reported back from the TC in the comments section of the TC Activity Form. In the case of a tie, the nomination decision is at the discretion of the Section Head but should be supported by an appropriate rationale at the time of Nomination and prior to the approval vote of the TAC membership. Award point values may be reevaluated by TAC on an annual basis.

6. FUNDING
The award certificates will be funded through the operating budget of TAC and administered by the Society Staff Liaison to TAC (MORTS).
### Table 1: Outstanding TC Award Metrics
(Spring and Winter quorums are mandatory for consideration)

<table>
<thead>
<tr>
<th>Section</th>
<th>Head tracked metrics</th>
<th>Points</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>Activity Sheet submitted on time</td>
<td>15</td>
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<tr>
<td></td>
<td>Roster workbooks submitted on time (Winter only)</td>
<td>20</td>
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<tr>
<td></td>
<td>Chair/Vice-Chair attendance at Section breakfast</td>
<td>15 per attendee</td>
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<td></td>
<td>Website up-to-date (prior to meeting)</td>
<td>20</td>
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<tr>
<th>B</th>
<th>MOP metrics</th>
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<tbody>
<tr>
<td></td>
<td>Minutes completed on time</td>
</tr>
<tr>
<td></td>
<td>Agenda distributed on time</td>
</tr>
<tr>
<td></td>
<td>Chair (Vice-chair, Sec) training</td>
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<tr>
<td></td>
<td>Subcommittee Chair training</td>
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<tr>
<td></td>
<td>o Handbook</td>
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<tr>
<td></td>
<td>o Program</td>
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<tr>
<td></td>
<td>o Research (breakfast)</td>
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<tr>
<th>C</th>
<th>Membership metrics</th>
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<tbody>
<tr>
<td></td>
<td>Average % of total VM present &gt; 2/3</td>
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<tr>
<td></td>
<td>Addition of new members to roster</td>
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<table>
<thead>
<tr>
<th>D</th>
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<tbody>
<tr>
<td></td>
<td>Number of Handbook Chapters voted out</td>
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<td>Number of Standards [need for revision] voted on</td>
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<tr>
<td></td>
<td>Special publication completed</td>
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<td></td>
<td>FAQs revised</td>
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<tr>
<th>E</th>
<th>Program metrics</th>
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<td></td>
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<tr>
<td></td>
<td>Total # of paper sessions sponsored</td>
</tr>
<tr>
<td></td>
<td>Total # of seminars sponsored</td>
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<tr>
<td></td>
<td>Other papers*</td>
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<table>
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<tr>
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<tr>
<th>H</th>
<th>Other TAC initiatives</th>
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<tr>
<td></td>
<td>up to 25</td>
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</table>

* Research project technical paper, paper from TC presented in another TC’s session

Commented [KC41]: Only a few TCs have FAQs and they are not revised very often
Appendix XX REVISIONS TO RULES AND PROCEDURES
(This section is for informational purposes only and revisors should always look at the current information)

Part 1 Revisions to Rules of the Board (ROBs)

Proposed changes to Rules of the Board (ROBs) may be submitted by committees, councils, and Board members. Changes proposed by a committee shall be submitted through the body to which it reports; councils and Board members may submit proposed changes directly to the Board of Directors.

To propose a change to an existing ROB:

Present a two-column comparison showing the current ROB number and wording and the proposed ROB wording. A proposed change, at a minimum, shall include the ROB number, the proposed change, and the reasons for the change.

To propose a new ROB:

Present the wording for the new rule and include a statement indicating a recommended placement of the new rule within the ROB framework. Examples:

- It is recommended that this rule be placed in ROB, Book II, Publishing Council ROB.
- It is recommended that this rule be placed in ROB, Book I, Section 300, Meetings of Members.

To propose rescinding an existing ROB, include in the recommendation the ROB book in which the rule is located, the rule number or other identification code, and the wording of the rule.

Appendices to the ROB are considered part of the ROBs; therefore, revisions to appendices shall follow the same procedure as revisions to ROBs.

Proposed changes to Society-wide policies and procedures (e.g., Travel Reimbursement Policy, Election and Appointment Procedures) shall follow the same procedure as for changes to ROBs.

Part 2 Revisions to Manual of Procedures

Revisions to the Manual of Procedures must be approved by the Technology Council or designated council subcommittee.

Revisions and additions to the TAC Reference Manual are made by the Operations Coordinator as suggested by TAC members and maintained by staff. TAC members shall be informed about additions, changes and revisions as described in the TAC MOP.
DRAFT
MANUAL OF PROCEDURES
FOR
TECHNICAL ACTIVITIES COMMITTEE

REVISED:
FORWORD

The Technical Activities Committee (TAC) is a General Standing Committee of the Society and operates under the direction of the Board of Directors and Technology Council. The Rules of the Board ROB) for the Technical Activities Committee are the constitution of the committee. Proposed changes to the ROB and their appendices must be approved by the Board of Directors.

This Manual of Procedures (MOP) is a supplement to the TAC ROB and describes the duties and responsibilities assigned to the committee for its own guidance. The MOP and revision thereto, following approval by the committee, shall be submitted to Technology Council or designated council subcommittee for approval.

TAC maintains an accompanying Reference Manual that provides details about the duties and responsibilities described in this document. The Reference manual is not a part of the MOP but is exclusively for the benefit of committee operations.

Proposed TAC MOP and ROB changes are normally presented to Tech. Council for approval once a year for consideration at their fall meeting. Proposed changes that TAC believes require more immediate attention shall be presented to the chair of Tech. Council for permission to submit to Tech. Council.

YOUR COMMENTS ARE WELCOME

Submit comments or suggestions on this document electronically to the ASHRAE Manager of Research and Technical Services (MORTS).

E-mail: MORTS@ashrae.net

The MORTS will consolidate comments for TAC. TAC intends to maintain the Manual of Procedure as a “living document” and update it as it is needed and practical.

RECENT REVISIONS
2016xxxx Rewritten
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1. **GENERAL**

1.1. The Technical Activities Committee (TAC) coordinates ASHRAE technical activities in HVAC&R by approving, supervising, and assisting the formation and operation of technical committees (TCs), task groups (TGs), multidisciplinary task group (MTGs), and technical resource groups (TRGs), including determining scopes and membership in accordance with the Rule of the Board 2.428.

1.2. The Technical Activities Committee coordinates and cooperates with other committees whose activities involve TCs, TGs, MTGs, and TRGs to achieve the Society’s objectives.

1.3. The Chair and Vice Chair of TAC are nominated by the President-Elect of the Society and elected by the Board of Directors to serve one-year terms commencing at the close of the Annual Meeting of the Society according to ROB 3.300.004 A.

1.4. The Technical Activities Committee consists of members as described in ROB 2.428.002.1.

1.5. ROB 2.105.001 authorizes the number of normal meetings per year. Normally three meetings are held each year: one at each Annual and Winter Society meeting and one at the fall Technology Weekend.

1.6. Details of the duties and responsibilities of TAC and its members are found in the TAC Reference Manual.

2. **CHAIR**

2.1. Responsible for the organization of TAC and the TAC Executive Committee (TAC ExCom) and presides over all meetings of TAC and TAC Executive Committee.

2.2. Appoints other committees and representatives as directed by the President or the Board of Directors or as requested by other standing committees of the Society.

2.3. Annually designates members of TAC to serve as Section Heads and Coordinators during each Society year. (See sections 5 and 6).

2.4. After consultation with the Section Heads, appoints a Chair and members for each Technical Committee, Task Group, Multidisciplinary Task Group, and Technical Resource Group as detailed in the TC/TG/TRG/MTG Manual of Procedures from nominations made by the current TC/TG/MTG/TRG Chair and endorsed by the Section Head.

2.4.1. The TC/TG/TRG/MTG chair is appointed for one or more one-year terms but not normally to exceed two consecutive one-year terms. An exception for additional consecutive terms may be granted by the TAC Chair if the TC/TG/MTG/TRG makes a written request and that request is approved by the Section Head. The extended appointment shall be made only if it serves the best interest of the Society.

2.5. Prepare and submit to the Technology Council and the Board of Directors, through the Executive Vice President, a semi-annual report, an annual report, and other reports as required.
2.6. Responsible for providing information to Society members to publicize the activities of the Technical Committees, Task Groups, and Technical Resource Groups; and other items of current significant interest concerning the operation of TAC.

2.7. In consultation with TAC members, determine whether a proposed special publication or revision to an existing special publication requires a broader peer review by members of other TC/TG/MTG/TRGs per the broad peer review procedure described in the TC/TG/MTG/TRG MOP and arrange for that review.

2.8. Responsible for meeting annual objectives for TAC.

2.9. Serves as a non-voting member of Technology Council and may be assigned to one or more subcommittees at the discretion of the Chair of Technology Council.

3. VICE CHAIR

3.1. In the absence of the Chair, the Vice Chair assumes the Chair at any scheduled or called meeting of TAC or the TAC Executive Committee.

3.2. In the event the Chair is unable to perform their duties, the Vice Chair assumes all of the duties of the Chair until a successor is selected.

3.3. Develop the TAC MBOs for the coming Society year; review and recommend organization and action plans to meet Strategic Plan Objectives (SPOs) assigned to TAC that involve multiple TCs, TGs, MTGs, or TRGs.

3.4. In consultation with the Finance Committee, the TAC Executive Committee, the Director of Technology, and the Manager of Research and Technical Services, prepare recommended budgets for the operation of TAC for the coming fiscal year for consideration by TAC and Technology Council.

3.5. Serves as a non-voting member of Technology Council and may be assigned to one or more subcommittees at the discretion of the Chair of Technology Council.

4. EXECUTIVE COMMITTEE (TAC ExCom)

4.1. The voting members of the Technical Activities Executive Committee are the TAC Chair, the TAC Vice Chair, and the TAC Coordinators.

4.2. The Technical Activities Executive Committee meets before the first scheduled meetings of TAC at the Annual and Winter Meetings of the Society and as required, assists with the organization and operation of TAC and has the following responsibilities:

4.2.1. Recommend changes in policy.

4.2.2. Assist in preparation of TAC budgets.

4.2.3. Assist in preparation of TAC agendas.

4.2.4. Periodically review the TAC ROB and MOP, identify necessary updates and assign responsibility for providing updates.

4.2.5. Exercise the powers and carry out the purposes of TAC during intervals between meetings.

5. COORDINATORS

5.1. The Chair designates members of TAC to serve a one year term as Operations Coordinator, Training Coordinator and Membership Coordinator.

Commented [KC8]: Moved to reference manual

Commented [KC9]: I added this language to make it clear that the process starts when a committee wants to do one, not after they are done. In case there is an existing special pub that needs to be updated, I added those words also.

Commented [KC10]: Moved to reference manual

Commented [KC11]: The Tech Council MOP is silent and assignments are at the discretion of the Tech Council chair.

Commented [KC12]: Moved to the reference manual

Commented [KC13]: This section is all new and establishes a permanent TAC ExCom. Details of the duties are in the reference manual.

It does not prevent the Chair from assigning other subcommittees or to assign assistance to the coordinators.
5.1.1. The Operations Coordinator is responsible for maintaining the processes and procedures required to enable TAC and the committees under its purview to operate as efficiently as possible; and provides liaison between TAC and other ASHRAE standing committees and councils as needed.

5.1.2. The Training Coordinator is responsible for developing and presenting materials that will improve the efficacy of the committees under TAC purview as well as providing information that will expand the knowledge of the HVAC&R community about things resulting from all TAC involvement.

5.1.3. The Membership Coordinator is responsible for developing and maintaining procedures that help insure the committees under TAC purview have the membership required to fulfill their purpose and scope, including roster processes; and acts as the official liaison between TAC and the Conferences and Expositions Committee (CEC).

5.2. Other Coordinators, ad hoc committees, or working groups from the membership of TAC or the Society may be appointed by the Chair as necessary to assist in fulfilling the responsibilities of TAC during each Society year.

6. SECTION HEADS

6.1. A Section Head is a member of TAC who has been designated by the Chair to supervise the TCs, TGs and TRGs that are assigned to a Section.

6.1.1. Each Section Head is responsible for the coordination and development of the activities of the TCs, TGs and TRGs within their Section and provides liaison between them and TAC.

6.2. The MTG Section Head is a member of TAC who has been designated by the Chair to supervise the MTGs in the MTG Section.

6.2.1. The MTG Section Head is responsible for the coordination and development of the activities of the MTGs within the MTG section and provides liaison between them and TAC.

6.2.2. The MTG Section Head is responsible for developing and maintaining liaison with technical groups outside of ASHRAE that have some common purpose or interest to ASHRAE.

7. ANCILLARY RESPONSIBILITIES

7.1. TAC will annually review all eligible nominations received and make a recommendation to the Honors and Awards Committee for its consideration on the George B. Hightower Award recipient based on the procedures outlined in the TAC Reference Manual.

7.2. TAC will review all requests or suggestions for new awards, revisions to current awards, or award deletions according to the guidelines for awards outlined in the TAC Reference Manual.

7.3. Changes to the TAC Reference manual are normally be made by the Operations Coordinator with the concurrence of TAC ExCom. Substantive changes affecting awards programs shall be approved by the entire committee.
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 2, Abruzzi Room
Section 3, Forum 3 Room
Section 4, Forum 13 Room
Section 5, Forum 20 Room
Section 6, Tribune Room
Section 7, Forum 12 Room
Section 8, Forum 5 Room
Section 9, Forum 4 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.

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](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
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
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
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 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](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](http://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.
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 Tour 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

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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.
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](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](http://www.ashrae.org/LongBeach)
   Conference Program Chair: Ann Peratt Email: ann.peratt@gmail.com
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 UPCHANG WORKSHOPS, CONFERENCES AND EVENTS

1. 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


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
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<tr>
<th>Track No.</th>
<th>Cindy Moreno</th>
<th>Michael Collarin</th>
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<td>District Energy and Cogen Plants</td>
<td>Standards, Guidelines and Codes</td>
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<td>Safeguarding your HVAC&amp;R System</td>
<td>Earth, Wind &amp; Fire</td>
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<td>5</td>
<td>Residential: Modern Buildings in Hot and Humid Climates</td>
<td>Beyond the &quot;L&quot;: IAQ and Air Conditioning in Transportation Applications and Enclosed Vehicular Facilities</td>
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<td>Professional Skills</td>
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<td>Controls: Troubleshooting Building Management Systems</td>
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Ann Peratt  
A2017  
Long Beach

Leon Shapiro  
W2017  
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
Advances in Refrigeration Systems and Alternative Refrigerants

Research Summit

Fundamentals and Applications

HVAC Systems and Equipment

Smart Building Systems/Remote Monitoring and Diagnostics

Indoor Environment: Health, Comfort, Productivity

Professional Skills Beyond Engineering

Renewable Energy Systems and Net Zero Buildings
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<td>Research Summit</td>
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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
Liaison Guidelines, January 10, 2016

Liaisons,

Whether you are attending a TAC Section Breakfast or a Technical Committee meeting, your primary task is to be sure that the committee understands what the most important information your committee wants this committee to know and to do it in the most effective way possible. The following guidelines will insure that you are successful and that you continue to have a cordial relationship.

1. **INFORM** the Section Head or Committee Chair in advance (if possible) that you will be attending and if you have specific time limitations for attending (such as you need to leave by XX:XX).

2. Before the meeting starts, **BE SURE YOU TELL** the Section Head or Committee Chair who you are, that you are available, wish to speak (if you do) and other responsibilities during the same time frame so that you can be recognized appropriately without interrupting the meeting as agendas are usually tight during the meeting. Committee Chairs recognize that you probably have other meetings you attend at the same time and they are always willing to make as much accommodation as they can without totally disrupting the meeting. However, you are probably not the most important thing on the agenda or your presence would have been requested in advance.

3. **PROVIDE** an electronic copy of the written material to the Committee Chair(s) and/or Secretary so that your information can be included in their documentation. You may also bring the written material to the breakfast or committee meeting.

4. **DO NOT READ** any written material you bring. All of our committee members can read.

5. **BE PREPARED** to summarize the 3 most important points. The rest can be read when the committee member gets a chance. This will keep your presentation brief, efficient and highlight the most important things you need to be sure everyone hears.

6. **PLAN** on your presentation taking no longer than 2 – 4 minutes exclusive of discussion or questions by the group. If the Section Head or Committee Chair wants to entertain discussion or questions, it is their choice.

7. If you are a new liaison to the section or committee, leave your contact information with the Section Head and Committee Chair(s) or Secretary.

8. Sign the attendance sheet.