MINUTES

TECHNICAL ACTIVITIES COMMITTEE

2018 Annual Meeting

June 23 & June 27, 2018
TABLE OF CONTENTS
TECHNICAL ACTIVITIES COMMITTEE
June 23 & June 27, 2018

PRINCIPAL MOTIONS ........................................................................................................... iii
ACTION ITEMS .................................................................................................................... iv
LIST OF ATTACHMENTS ...................................................................................................... vii
A - CALL TO ORDER & INTRODUCTION ........................................................................... 1
B - ADDITIONS AND/OR CHANGES TO THE AGENDA .................................................... 1
C – ACTION ITEM TRACKING AND PRELIMINARY REVIEW ..................................... 1
D - APPROVAL OF MINUTES – 2018 Spring Web/Conference Call ............................ 3
E - CHAIR’S REPORT ......................................................................................................... 3
F - BOD EXOFFICIO & COORDINATING OFFICER REPORT ........................................ 5
G – VICE CHAIR’S REPORT ............................................................................................ 5
H – MTG SECTION HEAD ............................................................................................... 6
I – POTENTIAL MOTIONS FOR TAC CONSIDERATION .............................................. 6
J - ROSTER COORDINATOR & CEC LIAISON ............................................................ 6
K – OPERATION COORDINATOR ................................................................................... 7
L - TRAINING COORDINATOR ..................................................................................... 8
M – SUNDAY’s SECTION MEETINGS/BREAKFAST REMINDERS ................................. 8
N – CEC CONSULTANT REPORT .................................................................................... 8
O – STAFF REPORT ......................................................................................................... 8
P – SECTION HEAD REPORTS ........................................................................................ 8
Q – UNFINISHED BUSINESS ....................................................................................... 10
R – NEW BUSINESS ....................................................................................................... 10
S – REVIEW NEW ACTION ITEMS ............................................................................... 10
ADJOURN
# PRINCIPAL MOTIONS

**TECHNICAL ACTIVITIES COMMITTEE**  
**June 23 & June 27, 2018**

<table>
<thead>
<tr>
<th>No.</th>
<th>Motion</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>minutes of the TAC 2018 Spring Meeting be approved as drafted</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>TG2.HVAC become TC 2.10 with the following title and scope:</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>It is recommended that Technology Council send to Members Council and CEC the following referral for consideration:</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>It is recommended that Technology Council send to Members Council and CEC the following referral for consideration:</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>A new multidisciplinary task group titled MTG.ASHRAE Health and Wellness in the Built Environment – be formed as shown below:</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>Scope to TC 4.7, Energy Calculations be revised as indicated below:</td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td>Scope to TC 5.11, Humidifying Equipment be revised as indicated below:</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>Recommendation that Technology Council endorse ASHRAE participation in Great Predictor Shootout 3.</td>
<td>9</td>
</tr>
</tbody>
</table>

* * * * *
## NEW ACTION ITEMS
### TECHNICAL ACTIVITIES COMMITTEE
### June 23 & 27, 2018

<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>Justice</td>
<td>Contact CEC and CTTC Chairs and suggest that we work together to make suggested edits to the Society Commercialism policy as it applies to TCs, Society program, and chapter meetings.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>TC STAFF</td>
<td>Provide ASHRAE Standards staff with an up-to-date copy of the TC/TG/TRG/MTG Title and Scopes document after each TAC meeting so that appropriate TCs can be notified when new standards or guidelines are proposed. Also suggest that they announce proposed new Standards and Guidelines in ASHRAE Insights.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Kohler, Goldschmidt, Meredith MORTS</td>
<td>Develop recommended edits to the TC MOP that provides guidance to TC Chairs and TC members on how to properly use the ASHRAE TC letterhead and how instead to properly communicate with outside groups on issues such as codes, standards, etc. on an individual basis without reference to ASHRAE</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>MORTS</td>
<td>Work with standards staff to identify specific examples where ASHRAE letterhead as improperly used.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>MORTS</td>
<td>Send ASHRAE Board Executive Assistant the six suggested edits to the TAC ROB (Rules of Board) that the Mr. Justice developed for consideration – AI#7 F17</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>MORTS</td>
<td>Develop MTG activity form based on TC activity form, but focused on MTG activities instead.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Maston</td>
<td>Update on efforts to form CEC/TAC Working Group to develop better documentation of CEC process / procedures and to make finding information on the submission process easier to find on the website.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>TAC</td>
<td>Support CEC program reviews in the summer for the Atlanta meeting.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Todorovic</td>
<td>Develop a briefing document for CEC and PubEd explaining the need for possible new procedures and disclaimers covering Society program presentations held in TC meetings. Some TCs are recording and posting such presentations to YouTube now, which can then be modified by others without any control from ASHRAE.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>MORTS</td>
<td>Incorporate into TC MOP the suggested edits proposed by Craig Wray concerning voting rules related to standards and guidelines into order to bring the TC MOP into agreement with PASA (Procedures for ASHRAE Standards Actions).</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Justice</td>
<td>Suggest to ECC Chair that ECC develop a short training webinar or 1 page cheat sheet on how to efficiently use Basecamp 3 at TC level.</td>
<td></td>
</tr>
<tr>
<td>Action No.</td>
<td>Responsibility</td>
<td>Summary of Action Items</td>
<td>Status</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>12</td>
<td>Meredith</td>
<td>Send new TC activity form and section tracking tool to Section Heads for thoughts and comments prior to fall meeting – Goal is to have new tool ready for use in Atlanta.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Payne</td>
<td>Work in coordination with predecessor (Krishnan Gowri) to provide TAC comments back to TC 9.8 on proposed scope change</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Justice</td>
<td>Add Krishnan Gowri to SY 18-19 TAC roster as a Consultant to help champion Great Predictor Shootout 3 effort this year.</td>
<td></td>
</tr>
</tbody>
</table>

**SPRING MEETING – April 19, 2018**

<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>Goldschmidt/Smith/Tauby/Kohler</td>
<td>Review the current training materials and make recommendations in Houston</td>
<td>On-going</td>
</tr>
</tbody>
</table>

**WINTER MEETING - January 20 & January 24, 2018**

<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>Vaughn</td>
<td>Work with IT (Chris Walters) to gather input on the best way to distribute this report</td>
<td></td>
</tr>
</tbody>
</table>

**FALL MEETING- October 3, 2017**

<table>
<thead>
<tr>
<th>Action No.</th>
<th>Responsibility</th>
<th>Summary of Action Items</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Lu</td>
<td>Work with TC 6.10 Chair and proposer of new TG on Biomass Boilers (David Bancroft) to see if two groups can join forces under TC 6.10 with possibly new title and scope.</td>
<td>On-going</td>
</tr>
<tr>
<td>6</td>
<td>Maston, Minor, Gowri, Lawrence</td>
<td>Review the two TC Ad Hoc final reports and make recommendation to TAC on how to proceed given that original purpose of Ad Hoc was to help resolve on-going issues between TAC and CEC.</td>
<td>On-going</td>
</tr>
<tr>
<td>7</td>
<td>Justice</td>
<td>Review latest TAC ROB (Aug. 2017) to confirm TAC is in full compliance with rules or if corrective measures are needed to bring TAC into compliance.</td>
<td>On-going</td>
</tr>
<tr>
<td>8</td>
<td>Justice</td>
<td>Develop rough draft of new Section Head report template for TAC review and discussion in Chicago.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Maston/Minor</td>
<td>Work with CEC and MORTS to get program submission tips template out to TCs again and possibly posted to TC webpage and Houston conference page.</td>
<td>On-going</td>
</tr>
</tbody>
</table>
### ANNUAL MEETING, June 24 & 28, 2017

<table>
<thead>
<tr>
<th>Action No.</th>
<th>Responsibility</th>
<th>Summary of Action Items</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Section Heads</td>
<td>Request feedback from TCs on the use of RPMs and submit to MORTS</td>
<td>On-going</td>
</tr>
</tbody>
</table>

### WINTER MEETING, January 28 & February 1, 2017

<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>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>On-going</td>
</tr>
</tbody>
</table>
LIST OF ATTACHMENTS

ATTACHMENT A: 2017-2018 TAC MBOs
ATTACHMENT B: TAC ROB Suggestions
ATTACHMENT C: Trend Base Sample
MINUTES
TECHNICAL ACTIVITIES COMMITTEE
June 23 & June 27, 2018

MEMBERS PRESENT:
Kelley Cramm, Chair
Thomas Justice, Vice Chair
Amir Jokar, Section 1
Elbert Phillips, Section 2
Jay Kohler, Section 3
Dennis Wessell, Section 4
Larry Smith, Section 5
Dawan Lu, Section 6
Sarah Maston, Section 7
Dustin Meredith, Section 8
Krishnan Gowri, Section 9
James Tauby, Section 10
Carl Huber, Section MTG
Marija Todorovic, Operations Coord.
Barbara Minor, Membership Coordinator/CEC Liaison
Victor Goldschmidt, Training Coordinator
Thomas Lawrence, BOD Ex-O

MEMBERS ABSENT:
Ginger Scoggins, Coord. Officer

ASHRAE STAFF:
Mike Vaughn, SMORTS
Steve Hammerling, MORTS

GUESTS:
Chris Balbach
John Constantinide
Carol Lomonaco
Craig Messmer – Incoming TAC
Vance Payne – Incoming TAC

A. CALL TO ORDER & INTRODUCTIONS
Chair, Kelley Cramm, called the meeting to order at 8:00 am, CDT on Saturday, June 23, 2018. Members and staff attended as recorded above.

Commitment to the ASHRAE Code of Ethics: In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests. (See full Code of Ethics: https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics)

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

C. ACTION ITEMS TRACKING AND PRELIMINARY REVIEW OF ACTION ITEMS

STATUS-ACTION ITEMS
Spring Meeting – April 19th, 2018

<table>
<thead>
<tr>
<th>Action No.</th>
<th>Responsibility</th>
<th>Summary of Action Items</th>
<th>Status</th>
</tr>
</thead>
</table>


<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/Justice</td>
<td>Work with IT (Chris Walters) to gather input on the best way to distribute this new section head report to TCs &amp; Section Heads.</td>
<td>On-going</td>
</tr>
</tbody>
</table>

**Winter Meeting** - January 20 & January 24, 2018

<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>Goldschmidt</td>
<td>Review the current training materials and make recommendations in Houston</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3</td>
<td>Goldschmidt/Smith/Tauby/Kohler</td>
<td>Review the current training materials and make recommendations in Houston</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

**Fall Meeting** - October 3, 2017

<table>
<thead>
<tr>
<th>Action No.</th>
<th>Responsibility</th>
<th>Summary of Action Items</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Lu</td>
<td>Work with TC 6.10 Chair and proposer of new TG on Biomass Boilers (David Bancroft) to see if two groups can join forces under TC 6.10 with possibly new title and scope.</td>
<td>On-going</td>
</tr>
<tr>
<td>6</td>
<td>Maston, Minor, Gowri, Lawrence</td>
<td>Review the two TC Ad Hoc final reports and make recommendation to TAC on how to proceed given that original purpose of Ad Hoc was to help resolve on-going issues between TAC and CEC.</td>
<td>Rework &amp; Resend to BOD</td>
</tr>
<tr>
<td>7</td>
<td>Justice</td>
<td>Review latest TAC ROB (Aug. 2017) to confirm TAC is in full compliance with rules or if corrective measures are needed to bring TAC into compliance.</td>
<td>On-going</td>
</tr>
<tr>
<td>10</td>
<td>Maston/Minor</td>
<td>Work with CEC and MORTS to get program submission tips template out to TCs again and possibly posted to TC webpage and Houston conference page.</td>
<td>On-going</td>
</tr>
<tr>
<td>12</td>
<td>Section Heads</td>
<td>Present a summary on section performance at section breakfast in Chicago using data from activity form (RPs, Quorum, Program submissions, HDBK, etc.) to show TCs there is value from collecting this data over time.</td>
<td>On-going</td>
</tr>
<tr>
<td>13</td>
<td>Meredith, Wessel, Gowri, Jokar</td>
<td>Will review current Section Head Tool and make recommendation to TAC in Chicago.</td>
<td>On-going</td>
</tr>
</tbody>
</table>

**ANNUAL MEETING, June 24 & 28, 2017**

<table>
<thead>
<tr>
<th>Action No.</th>
<th>Responsibility</th>
<th>Summary of Action Items</th>
<th>Status</th>
</tr>
</thead>
</table>
WINTER MEETING, January 28 & February 1, 2017

<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>Jokar/Todorovic</td>
<td>Review recommendations for O&amp;M and provide feedback on how to move forward with the O&amp;M Initiatives – Related to Houston Agenda Item E.b.3.</td>
<td></td>
</tr>
</tbody>
</table>

****

D. APPROVAL OF MINUTES

It was moved and seconded that,

(1) minutes of the TAC 2018 Spring Meeting be approved as drafted

MOTION #1 – PASSED 13-0-0, CNV

E. CHAIR’S REPORT (Cramm)

a) Disposition of Motions from Last Meeting Requiring Higher Body Approval – No motions submitted by TAC at their last meeting.

b) New or Carryover Action Items Assigned to TAC by TechC:

1. TechC A.I. #8 - Report on Strategic Plan 2B implementation to Tech Council at 2018 Annual meeting – Maston, Minor and Gowri

INITIATIVE 2: ASHRAE Efficiency – Organizational Assessment - The technical committees are the engine that drives ASHRAE technology. They must operate at full efficiency for ASHRAE to meet its desired goals. ASHRAE will review all aspects of the technical committee organization to ensure it is ready for today’s and tomorrow’s needs.

The AdHoc created a SWOT (strength, weakness, opportunities & threats) analysis to see if the organization is meeting the needs of its clientele. From the SWOT, a survey was created and distributed to TC Chairs. The survey was used to look at the positives of the current TC structure and the areas where there is room for improvement.

2. TAC provide a recommendation at this meeting as to whether a new TC, TG, TRG, MTG or Presidential Ad Hoc should be formed to focus attention on the topic of Resiliency / Natural Disaster Preparedness for the Society – TG2.HVAC currently includes the topic of resilience and extraordinary events in their scope and wishes to become full TC now.

It was moved and seconded that,

(2) TG2.HVAC become TC 2.10 with the following title and scope:

TC 2.10 Resilience and Security

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

MOTION #2 – PASSED 13-0-0, CNV
3. **Uncoordinated Efforts – ASHRAE TCs, MTGs, etc.** - Continue TAC spring meeting initial discussion.

4. **New Member Council Referrals assigned to TAC & TCs for a response & possible action.**

It was moved and seconded that,

(3) it is recommended that Technology Council send to Members Council and CEC the following referral for consideration:

Is TAC Section Head and TC feedback on programs and meetings tracks effective and useful to CEC? If so, TAC has agreed to do reviews again for the Atlanta meeting. If long term collaboration is desired, this task should be added to both the CEC and TAC MOPs.

**MOTION #3 – PASSED 13-0-0, CNV**

It was moved and seconded that,

(4) It is recommended that Technology Council send to Members Council and CEC the following referral for consideration:

Commercialism reviews conducted by CEC for Society programs should only strictly adhere to the Board approved Commercialism policy and not exceed it.

**MOTION #4 – PASSED 13-0-0, CNV**

**Action Item #1** <Justice> Contact CEC and CTTC Chairs and suggest that we work together to make suggested edits to the Society Commercialism policy as it applies to TCs, Society program, and chapter meetings.

c) **New Information Items:**

1. **TAC/TC Input Provided on Tracks for 2019 Annual Meeting – Completed spring 2018 via e-mail request**
2. **Summary Report on TC & SSPC 90.1 survey results regarding TC issues with Standard 90.1 & TCs most needed by SSPC 90.1 to help on standard through working groups.** – Share summary report with TCs at Section Head Breakfast.
3. **TC websites being used again to notify TC members that they can obtain a free name badge for TC meeting in Registration**
4. **TC 4.7 (Energy Calculations) proposed scope change**
5. **TC 9.2 has developed a new ASHRAE design guide for ventilation and AC of hazardous spaces in response to a U.S. Chemical Safety Board report on two spill incidents.** - TC 9.2 (Industrial Air Conditioning and Ventilation) has been assigned this referral by TAC at this meeting. Information of ventilation for the textile and garment industries should be available in the Textile Processing Plants Chapter of the 2023 Applications Handbook Volume. When the referral was submitted in 2016, this TC was being created by merging the previous Industrial Ventilation and Industrial Air Conditioning TCs from two different sections and was not in a position to take on such an assignment while new TC scope was being developed and rosters merged.
6. **ASHRAE Terminology Update Workshop #6 planned for Houston – Wednesday 6/27 9:45 am to 10:45 am – Room 371DE**
7. **ASHRAE ExCOM has decided Not to withdraw from ASHRAE / NSF (National Sanitation Foundation) MOU as recommended by some members of TC 3.6 and SSPC 188. Some members resigned as result.**
8. Concern voiced by a member with the new content in a TC 6.6 (Service Water Heating Systems) handbook chapter and how last minute changes to chapter were handled by TC.

9. We need a process that insures all interested TCs are at the table when developing standards and guidelines – Cramm/Messmer explain current problem. See related agenda item K.b.1. also.

**Action Item #2** <TC Staff> Provide ASHRAE Standards staff with an up-to-date copy of the TC/TG/TRG/MTG Title and Scopes document after each TAC meeting so that appropriate TCs can be notified when new standards or guidelines are proposed. Also suggest that they announce proposed new Standards and Guidelines in ASHRAE Insights.

10. Individual TC members using ASHRAE letterhead to speak for ASHRAE - TC 8.6 Comments Regarding California Title 24.

**Action Item #3** < Kohler, Goldschmidt, Meredith, MORTS > Develop recommended edits to the TC MOP that provides guidance to TC Chairs and TC members on how to properly use the ASHRAE TC letterhead and how instead to properly communicate with outside groups on issues such as codes, standards, etc. on an individual basis without reference to ASHRAE

**Action Item #4** <MORTS> Work with standards staff to identify specific examples where ASHRAE letterhead as improperly used.

11. Follow-up on Board reported uncoordinated efforts of ASHRAE TCs, MTGs, Etc. – related to AI #1

12. Proposed special publication from TC 1.4 related to Guideline 36 (High Performance Sequences of Operation for HVAC Systems)

13. Offer to send Thank you letters to Employers

14. Society Rules Committee (SRC) Guidance document for Councils and Committees on ROB, MOPs

d) MBOs – Attachment B
e) 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, 6/26, (5:00 pm?) and then during Wednesday, 6/27, 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.

F. BOD EX-OFFICIO & COORDINATING OFFICER (Lawrence & Scoggins)
Lawrence thanked TAC for all their hard work and efforts, encouraged TAC form nominations and asked all to think about what they want to do next. The presentation included a list of opportunities and qualifications.

G. VICE CHAIR’S REPORT (Justice)
a) Initial Plans for SY 18-19 and request for suggestions from TAC members
b) Review TAC ROB section for accuracy – AI #7 F17 Included as ATTACHMENT B
Action Item #5 <MORTS>

Send ASHRAE Board Executive Assistant the six suggested edits to the TAC ROB (Rules of Board) that the Mr. Justice developed for consideration

c) Update & discussion on efforts to develop new section head report template – Reviewed a rough draft of a new Metric Trend Base report. A sample of this report is included as ATTACHMENT C

H. MTG SECTION HEAD (Huber)

a) Status of MTGs:
   1. MTG.ACR – Air Change Rate
   2. MTG.BD – Building Dampness
   3. MTG.BIM – Building Information Modeling
   4. MTG.EBO – Effective Building Operation – NEW!
   5. MTG.HCDG – Hot Climate Design Guide – Project should be complete by the end of 2018
   6. MTG.IAST – Impact of ASHRAE Standards and Technology on Energy Savings / Performance – WS approved by RAC during their spring meeting
   7. MTG.LowGWP – Alternative Lower Global Warming Potential Refrigerants – 3 active projects
   8. MTG.OBB – Occupant Behavior in Buildings

b) Other MTG Related Issues & News - TBD

It was moved and seconded that,

(5) A new multidisciplinary task group titled MTG.ASHRAE Health and Wellness in the Built Environment – be formed as shown below:

MTG.HWBE, Health and Wellness in the Built Environment

MTG### will coordinate TC/TG/TRG technical activities related to enhanced health and wellness of the occupants in the built environment. The focus of the MTG will be to help to foster and expand internal and external organizational partnerships in this subject area, particularly with organizations developing green building rating systems (e.g., ASHRAE bEQ; LEED; WELL; Living Building Challenge; RESET, etc.), government agencies and research institutes. The objective of this coordination is to strengthen and improve the development and utility of these green building rating systems, to increase ASHRAE’s knowledge and expertise in this emerging field, and to become more effective in disseminating the results of research and practice in this field to ASHRAE members and others. The MTG will fulfill its purpose and scope through activities including, but not limited to: sponsoring and cosponsoring research, developing design guides, recommending policy statements, conducting forums, and presenting conference papers and seminars.

MOTION #5 – PASSED 13-0-0, CNV

Action Item #6 <MORTS> Develop MTG activity form based on TC activity form, but focused on MTG activities instead

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

   a) TBD

J. ROSTER COORDINATOR & CEC LIAISON (Minor)

   a) 18-19 Rosters – Status on Goals & Number
Copies of all 2018-2019 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 “Ref. Info” folder on the Basecamp site.

The current roster can be accessed anytime at [http://ASHRAE.org/MyActiveCommittees](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) Changes for Roster Update Process this Year? – New Online Roster Update Form – Timeline for New online Roster System fully integrated with ASHRAE Database:

- Add Voting/Non-Voting Status to the proposed membership list and status section (Due Date: May 18, 2018)
- Update the additional position field to include the listing for additional Subc. Chairs. (Due Date: June 22, 2018)
- Adjust the save and submit button. Once the update form is complete, it should be sent directly to the section head. Once the section head approves, it should be sent directly to staff. (Due Date: August 3, 2018)
- Link the online roster tool to Netform allowing the forms to current and up-to-date during the update process. (Due Date: September 14, 2018)
- Allow TC Chairs, Vice Chair, Section Head access to the online roster tool by logging into the members only section – under my committees (Due Date: October 26, 2018)
- Transfer all updates automatically into Netform (Due Date: December 7, 2018)

c) Roster Update Schedule and goals for 19-20 Rosters

It is our goal to be completely automated by December 2018

d) Update on CEC activities and issues Improve understanding of TC chairs and program subcommittee chairs about how CEC works CEC Liaison (Minor & Maston Lead Discussion) – MBO 1.1

**Action Item #7** <Maston> Update on efforts to form CEC/TAC Working Group to develop better documentation of CEC process / procedures and to make finding information on the submission process easier to find on the website.

**Action Item #8** <TAC> Support CEC program reviews in the summer for the Atlanta meeting.

K. OPERATIONS COORDINATOR (Todorovic)

a) TAC Activities Report to other Standing Committees

**Action Item #9** <Todorovic> Develop a briefing document for CEC and PubEd explaining the need for possible new procedures and disclaimers covering Society program presentations held in TC meetings. Some TCs are recording and posting such presentations to YouTube now, which can then be modified by others without any control from ASHRAE.

1. Standing committee Liaisons to TCs – Tips and Suggestions for Speaking Time at Section Head Breakfast (Liaison speaking guidelines)
2. Liaison report to other committees
3. Spanish translation of TC documents and on-going maintenance

b) TAC or TC Procedure Motions for approval
1. Proposed revisions to TC MOP to clarify TC roles related to Std. & Gdl. consistent with PASA – WRAY -10 AM CDT

**Action Item #10 <MORTS>**  
Incorporate into TC MOP the suggested edits proposed by Craig Wray concerning voting rules related to standards and guidelines into order to bring the TC MOP into agreement with PASA (Procedures for ASHRAE Standards Actions).

c) Basecamp for documents

**Action Item #11 <Justice>**  
Suggest to ECC Chair that ECC develop a short training webinar or 1 page cheat sheet on how to efficiently use Basecamp 3 at TC level

d) Implement regular coordination/interface meeting at Society meetings or via web between TAC ExCOMs and ExCOMs of RAC / HBC / StdC / CEC / and new RBC (Residential Building Committee)

e) TAC Inter-society Liaisons - Annual Reports due in Houston

**L. TRAINING COORDINATOR (Goldschmidt)**

a) TC/TG/TRG Chair’s Training Workshop plans for Houston - New Training materials for incoming and current TC/TG/TRG/MTG chairs

**Action Item #12 <Meredith>**  
Send new TC activity form and section tracking tool to Section Heads for thoughts and comments prior to fall meeting – Goal is to have new tool ready for use in Atlanta.

1. Update on accuracy of current recorded “How to” Training Modules posted to website – **AI #3 SPR18**

b) Position training and mentor assignments for new TAC members (Messmer, Maston, and Payne)?

c) Investigate opportunities for TCs & TAC to become more involved with Professional Development Committee (PDC) – The goal is to improve effectiveness of PD Courses

**M. SUNDAY’s SECTION MEETINGS/BREAKFAST AND**

a) Liaison Speaking Guidelines (TAC chair conveys to all TC Liaisons prior to Chicago via e-mail)

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

c) TAC ExCOM focus on Section 10 at this meeting – Ongoing

d) Section Heads present summary on section performance based upon data from past activity reports – **AI #12 F17** (All Section Heads)

e) Review current Section Head Tool and make a recommendation to TAC in Chicago – **AI #13 F17** (Meredith, Wessel, Gowri)

**N. CEC CONSULTANT REPORT (Maston)**

a) Update on CEC activities and issues to help improve understanding of TAC, TC chairs, and program subcommittee chairs about how CEC works.

b) Work with CEC and MORTS to get program submission tips template out to TCs again and possibly posted to TC webpage and Houston conference page. – **AI #10 F17** (Maston)

**O. STAFF REPORT (MORTS)**

ASHRAE will be updating their database software (Net Forum) to the latest version provided by the vendor this spring. As a result, it was recommended by ASHRAE I.T. staff that we postpone the effort to integrate the online roster update input with the database until after this update is completed. Goal is to process the SY 19-20 TC rosters using an online input form that is fully integrated with the ASHRAE database for even better efficiency.
P. 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

It was moved and seconded that,

(6) Scope to TC 4.7, Energy Calculations be revised as indicated below:

   Technical Committee 4.7 is concerned with identifying, evaluating, developing, and recommending procedures for calculating energy performance of buildings the built environment.

MOTION #6 – PASSED 13-0-0, CNV

It was moved and seconded that,

(7) Scope to TC 5.11, Humidifying Equipment be revised as indicated below:

   Technical Committee 5.11 is concerned with equipment for raising the humidity of air in residential, and commercial, and industrial spaces; its application and control; effect of humidity on structures, content, processes, materials, and occupants; and testing and standards defining environmental and physiological requirements

MOTION #7 – PASSED 13-0-0, CNV

3. Section 6 Only - Proposed new TG 6.11 (Wood Energy Utilization) & Impact on TC 6.7 (Solar & Other Renewable Energies) – A1 #5 F17 (Lu)
4. TBD

It was moved and seconded that,

(8) Recommendation that Technology Council endorse ASHRAE participation in Great Predictor Shootout 3.

   BACKGROUND: This would be similar to contests ASHRAE did in 1990’s that involve using data-driven models to predict the energy consumption of buildings. A “data science platform” owned by Google (www.kaggle.com) would be utilized and is free to ASHRAE as a non-profit organization. Kaggle is a platform for administering data science competitions, bringing together the world’s largest community of data scientists to consult on some of the toughest data science problems. Kaggle also supports recruiting strong teams that amplify the power of the global data science community. TC 4.7 has agreed to lead effort with support from TC 1.5 and 7.5. Staff support is requested but no fiscal commitment.

MOTION #8 – PASSED 13-0-0, CNV

b) Updates on any Special Assignments assigned to TCs in section

c) Feedback of Effectiveness of TC Activity reporting tool – Work has started in trying to determine what key information is needed by TAC to effectively manage and support the TCs long-term
d) Feedback on New TC Roster Update System – Phase 1 (Online form) – New on-line TC roster update system continues to be developed. New on-line input was rolled-out to TCs to collect update information for SY 18-19 rosters.

e) Improve TC Websites – Status of Websites in Section
   1. Chicago minutes posted?
   2. Houston agenda posted?
   3. TC feedback on new template? Suggested enhancements?

f) Other Problems & Issues for TAC action or information?
   1. RPM Meeting Feedback from Houston
      (Priority for RPM given to TCs that won’t make quorum in Houston or Atlanta) – MBO #2.3
   2. TBD

Action Item #13 <Payne> Work in coordination with predecessor (Krishnan Gowri) to provide TAC comments back to TC 9.8 on proposed scope change

Action Item #14 <Justice> Add Krishnan Gowri to SY 18-19 TAC roster as a Consultant to help champion Great Predictor Shootout 3 effort this year.

Q. UNFINISHED BUSINESS
Certificates to retiring TAC Members presented by Cramm

R. NEW BUSINESS
Discuss an initiative to thank federal government employees who volunteer for ASHRAE?

S. REVIEW NEW ACTION ITEMS

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>
</thead>
<tbody>
<tr>
<td>1.0 Internal Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Improve understanding of TC chairs and program subcommittee chairs about how CEC works</td>
<td>Improve understanding of TC chairs and program subcommittee chairs about how CEC works</td>
<td>Ongoing</td>
<td></td>
<td>TAC and Staff</td>
<td>1c</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>Unknown</td>
</tr>
<tr>
<td>1.2 Methods to streamline the face-to-face meeting times for TAC</td>
<td>New</td>
<td>January 15, 2016</td>
<td>Chair working with all on TAC, staff</td>
<td>1A, 2A</td>
<td>Many of the volunteers who participate in ASHRAE committees are overloaded at the annual and winter meetings attending meetings. This objective will look at ways we can decrease the required face-to-face time, with a target of maybe 2-3 hours maximum on Saturday and 1 hour on Wednesday.</td>
<td>Efficiency</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>1.3 Monitor use and evaluate effectiveness of new TC activity reporting tool</td>
<td>A subcommittee was formed to study this. They have produced a report. Will discuss in Chicago</td>
<td>Jan-18</td>
<td>TC Section Heads</td>
<td>2a</td>
<td>Is this the right tool we need?</td>
<td>Efficiency</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>1.4 Implement systems to assist TC's in achieving quorum</td>
<td>This is a low priority for the year</td>
<td>30-Jun-19</td>
<td>TAC and staff</td>
<td>2b</td>
<td>Section heads to start the process in Long Beach</td>
<td>Efficiency</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>1.5 Implement systems to assist TC's in achieving quorum</td>
<td>This is a low priority for the year</td>
<td>30-Jun-19</td>
<td>TAC and staff</td>
<td>2b</td>
<td>Section heads to start the process in Long Beach</td>
<td>Efficiency</td>
<td>Unknown</td>
<td></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>
<tr>
<td>--------</td>
<td>-----</td>
<td>--------</td>
<td>------------</td>
<td>-------------------</td>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>1.6</td>
<td>Roll out the Roster Update system</td>
<td>New on-line TC roster update system continues to be developed. One TC from each section will be asked to test system using their 17-18 spreadsheet information to see if system provides same results as spreadsheet. Expect to roll-out new system this fall.</td>
<td>Sep-17</td>
<td>TAC &amp; Staff</td>
<td>2a</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 - On-line TC roster update system is being developed by salaried ASHRAE I.T. staff as time allows.</td>
</tr>
<tr>
<td>1.7</td>
<td>Investigate what TAC can do to support Section 10 (Refrigeration) regarding activities/membership</td>
<td>This is a low priority for the year</td>
<td>TBD</td>
<td>TAC and staff</td>
<td>3a</td>
<td>What can we do to assist in this?</td>
<td>Technology transfer</td>
<td>None</td>
</tr>
<tr>
<td>1.8</td>
<td>Together with staff, define further improvements to the Roster Update process</td>
<td>On-going - Good progress made. Beta test of online tool next step.</td>
<td>January 15, 2016</td>
<td>Roster Coordinator &amp; Staff</td>
<td>1A, 2A</td>
<td>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>Potential development cost; $50k</td>
</tr>
<tr>
<td>1.9</td>
<td>Investigate the potential for an on-line alternative to the spreadsheet Section Head tool entry</td>
<td>New</td>
<td>June 30, 2016</td>
<td>TC Section Heads, Chair and Staff</td>
<td>1A, 2A</td>
<td>This is a follow-on to the MBO 1.1 which is monitoring the effectiveness of the Section Head reporting tool. The reporting tool was a good development, but compliance has lagged.</td>
<td>Efficiency</td>
<td>Potential development cost; $50k (Guess, similar to MBO 1.4)</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>
<tr>
<td>--------</td>
<td>-----</td>
<td>--------</td>
<td>----------</td>
<td>-------------</td>
<td>-----------------------</td>
<td>--------------</td>
<td>--------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>2.0</td>
<td>External Relations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Develop plan for residential position within TechC &amp; TAC &amp; RBC</td>
<td>On-going</td>
<td>June 30, 2016</td>
<td>Chair &amp; Staff</td>
<td>2C, 5A</td>
<td>Define direction for residential MTGs or TCs within TAC with the understanding that the one residentially focused TC recently voted to disband. This really is more of an External Relations issue, and MBO will either evolve or a new one created depending on the approach that ASHRAE will take.</td>
<td>Externally focused</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Develop plan for chapter outreach to communicate role of TCs &amp; how to get involved</td>
<td>On-going</td>
<td>June 30, 2016</td>
<td>Vice Chair &amp; Spec. Act. / Liaison Coord. &amp; Cooper</td>
<td>2C</td>
<td>One of the most important duties for TCs is the creation of programs for the ASHRAE meetings, but this process continues to be misunderstood and a point of contention between the TCs and CEC. First step is the creation of a position within TAC to have a CEC Liaison. Work with the CEC Liaison to develop additional methods for effective communication (beyond the CEC-TAC coordination meeting at 7:00 am Saturday.</td>
<td>Chapter Outreach</td>
<td>Minor</td>
</tr>
<tr>
<td>2.3</td>
<td>Implement opportunities for TC's to become involved with Student Members</td>
<td>TAC/Student Activities Event scheduled for Saturday afternoon in Chicago. Hope to make this a recurring event.</td>
<td>30-Jun-19</td>
<td>TAC and staff</td>
<td>1c</td>
<td>TAC to liaison with Student Activities Committee to identify opportunities.</td>
<td>Strategic - Students &amp; TC's, future of ASHRAE</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

<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>
</thead>
</table>


| 2.4 | Improve understanding of TC chairs and program subcommittee chairs about how CEC works | New. CEC Liaison has been created and filled for 2015-2016 | June 30, 2016 | Chair and CEC Liaison | 2C | Work with CTTC to brainstorm simple implementable 5 minute segments to encourage member involvement with TCs. CEC-TAC coordination meeting at 7:00 am Saturday. We have the PowerPoint presentation that was prepared 1-2 years ago, but this tool is not being used it appears. | Efficiency, better programs at ASHRAE meetings | none |
Rules of Board

Proposed Revisions
Non-voting members include a Board ex-officio member and coordinating officer

Non-voting members include a Board ex-officio member, a coordinating officer and a staff liaison
Individuals expected to serve on other standing committees or currently serving as chair or vice chair of a TC/TG/TRG should not be considered for election to TAC for the year under consideration.
All members shall have held at least one leadership role in the Society as chair of a technical committee prior to joining TAC.

All members shall have held at least one leadership role in the Society as chair of a TC, TG, TRG or MTG prior to joining TAC.
Trend base report sample