TC/TG/MTG/TRG MINUTES COVER SHEET

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

TC/TG/MTG/TRG No. TC 2.8 DATE June 25, 2018

TC/TG/MTG/TRG TITLE Building Environmental Impacts and Sustainability

DATE OF MEETING June 24, 2018 LOCATION Houston, TX

<table>
<thead>
<tr>
<th>MEMBERS PRESENT</th>
<th>YEAR APPTD</th>
<th>MEMBERS ABSENT</th>
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<th>EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE</th>
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<tbody>
<tr>
<td>Ashish Rakheja</td>
<td>2016</td>
<td>Calina Ferraro</td>
<td>2015</td>
<td>Joy Eileen Aaltwies, PhD</td>
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<td>Kevin R Brown</td>
<td>2016</td>
<td>David L Grumman, P.E.</td>
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<td>Paul A Torcellini</td>
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<td>Thomas M Lawrence</td>
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<td>John M Swift, Jr</td>
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<td>Elbert G Phillips</td>
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<td>Fred Betz, PhD</td>
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<td>Brittany Carl</td>
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<td>J Kevin Cross</td>
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<td>Douglas D Fick, PE</td>
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<td>Abdel Darwich</td>
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<td>Katherine Hammack</td>
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<td>Ng Yong Kong, P.Eng., GBIF</td>
<td>2014</td>
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<td>Renee Clair</td>
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<td>Francis A Mills</td>
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<td>Sumayyah Theron</td>
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<td>Lisa Chen Ng, PhD</td>
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<td>Elizabeth Jedrlinic</td>
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<td>Mitchell Swann, PE</td>
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<td>Bing Dong</td>
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<td>Rafi Karim</td>
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**DISTRIBUTION: All Members of TC/TG/MTG/TRG plus the following:**

<table>
<thead>
<tr>
<th>TAC Section Head: Elbert Phillips</th>
<th><a href="mailto:SHx@ashrae.net">SHx@ashrae.net</a></th>
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<td>Where x is the section number</td>
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<tr>
<th>All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALI, etc.)</th>
<th>See ASHRAE email alias list for needed addresses.</th>
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<tr>
<th>Mike Vaughn, Manager Of Research &amp; Technical Services</th>
<th><a href="mailto:MORTS@ashrae.net">MORTS@ashrae.net</a></th>
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TC 2.8 Building Environmental Impacts and Sustainability
Sunday, June 24, 2018, 5:30-7:00 pm
Houston, TX

1. **Roll call and Introductions** (Rakheja)
   1.1. Meeting called to Order at 5:32
   1.2. Introductions
   1.3. Roll Call / Quorum – quorum present (10 members including Chair, one additional joined later)

2. **Accept Agenda/Approve Minutes of Previous Meeting** (Stafford)
   2.1. Review Meeting Agenda
   2.2. Approval of Chicago Meeting Minutes:
       2.2.1. vote to approve– (10-0-0-4-CNV)

3. **Announcements/Membership** (Rakheja)
   3.1. Request for articles for ASHRAE anniversary (2019-2020)
   3.2. From CEC – looking for volunteers to assist with quality review of programs
       3.2.1. August 3rd deadline for Atlanta programs
       3.2.2. August 21 is deadline for paper abstracts for Kansas City
       3.2.3. Beginning summer 2019, extended abstracts will be allowed

4. **Standing Committee Liaisons** TAC/RAC/StdCom/Program/SpecPub/ALI
   4.1. Pawel Wargocki – RAC Liaison Section 2: gave a short report, and mentioned that we will go into Executive session for 1814-TRP bidder selection; asked for comments and questions for RAC
   4.2. Bert Philips – presented a certificate of appreciation to Ashish Rakheja for his work as TC Chair
   4.3. Tom Lawrence (For TAC): There’s a new TC being formed on Resilience, likely could be approved Wednesday (from an existing TG). Could be a collaboration opportunity. MTG.OBB may also convert to a full TC.

5. **Subcommittee Reports**
   5.1. GreenGuide (Lawrence)
       5.1.1. There was no meeting today (5th edition came out last year).
       5.1.2. Tom is working on a textbook version, beta testing in his classes this fall
       5.1.3. After that, will consider future updates to GreenGuide (possibly 2021).

   5.2. Standards (Lawrence/Fick/Swift)
       5.2.1. SPC 189.1 Standard for the Design of High-Performance Green Buildings except Low-Rise Residential Buildings (Lawrence/Persily)
           5.2.1.1. ASHRAE doesn’t sell it in North America anymore (now housed inside IgCC).
           5.2.1.2. Meetings are Tuesday and Wednesday AM
       5.2.2. SPC 189.3P Design, Construction and Operation of High Performance Green Healthcare Facilities (Fick)
           5.2.2.1. Meets Monday AM.
           5.2.2.2. In process of reviewing 189.1 and updating 189.3 (referencing issue on timing – can’t reference an unpublished document).
           5.2.2.3. Both documents exist outside of North America.
5.2.4. Steven Emmerich asked if anyone would be interested in participating on a 189.2 committee (on behalf of Standards). Could be forming due to dissolving of partnership with NAHB.

5.2.5. Frank asked if these are still international – might want to review the documents to make sure they are still usable in other countries. Doug Fick and Katherine Hammack will bring up in the respective committees.

5.2.3. SPC 191P Standard for the Efficient Use of Water in Building, Site and Mechanical Systems (Betz/Swift)
5.2.3.1. Meeting Tuesday AM to go through 2\textsuperscript{nd} public review comments
5.2.3.2. Will be a 3\textsuperscript{rd} public review
5.2.3.3. Want to get it out before Atlanta.

5.3. Handbook (Brown)
5.3.1. Did not meet today
5.3.2. Chapters aren’t due until 2022 Fundamentals
5.3.3. Likely to meet in Kansas City
5.3.4. There’s a Handbook breakfast meeting on Sundays – new editing and doc sharing scheme

5.4. International (Mills)
5.4.1. Hot Climate Design Guide is in progress – strong international participation
5.4.2. Focusing more on Hot Dry climates – looking for low energy, low carbon, net zero solutions, finding some conflicts with water usage
5.4.3. Will be about 80% complete in Atlanta, want to publish by next meeting
5.4.4. Working on a net zero hospital guide with REHVA, may come to Atlanta with draft
5.4.5. Developing economies – possibly in Brazil for next conference (theme of air quality and thermal comfort in the developing world).

5.5. Water-Energy Nexus (Karim/Pascual)
5.5.1. Three action items going forward: wholistic water-energy management guidelines in buildings; looking at what data are available on water-energy nexus and proposing an RTAR; propose a program for winter meeting on water reclamation in large facilities, alternative water treatment including cooling towers

5.6. Research (Altwies)
5.6.1. 1814-TRP received bids this spring: PES met to select bidder in June
5.6.1.1. TC voted to accept PES recommendation for selected bidder at end of meeting in Executive Session (9-0-0-5 CNV)
5.6.2. New RTAR from Betz and Dong on “Water Use Metrics and Patterns in Residential” ready to submit to RAC with TC approval
5.6.2.1. Vote to approve (11-0-0-3 CNV)
5.6.3. Two additional RTARs are nearing completion:
5.6.3.1. First from Lisa Ng on VOC measurements which is going through some revisions based on feedback from 62.1. This was voted for approval by TC 2.8 in Chicago but will likely need a revote when final wording approved by 62.1.
5.6.3.2. Second from Jim Sweeney and Kevin Cross on embodied energy - this will likely be completed and ready for feedback and TC vote during July (to meet RAC August 2018 deadline).
5.6.4. Full subcommittee meeting minutes attached in Appendix

5.7. Programs (Brown)
5.7.1. Full subcommittee minutes attached in Appendix

5.8. Existing and Future Building Challenges (Macauley/Brown)
5.8.1. No report for this meeting

5.9. Website (Ng)
5.9.1. No report
6. **Related Activities Reports**

6.1. ASHRAE Advanced Energy Design Guides Update (Torcellini)
   6.1.1. AEDG for Zero Energy Offices – peer review will be Labor Day weekend; another review in November

6.2. ASHRAE bEQ:
   6.2.1. No report

7. **Old Business**

7.1. Net Zero Energy Standard (Torcellini)
   7.1.1. Draft Title-Purpose-Scope (T-P-S) is available – does this TC see a need? Should we carry it forward?
   7.1.2. Committee voted to move forward with approval (8-0-0-6 CNV)

8. **New Business**

8.1. Developing guidelines on passive survivability
   8.1.1. USGBC is coming out with a resiliency certification
   8.1.2. One of the elements is passive survivability – can the occupants shelter in place? For how long?
   8.1.3. USGBC was starting to develop guidance – but this is ASHRAE expertise (temperature and humidity ranges will be wider, for example)
   8.1.4. USGBC wants something in 12 months
   8.1.5. Katherine Hammack sent out a Title-Purpose-Shape (TPS) today
   8.1.6. May not be entirely passive systems
   8.1.7. Next step would be for this TC to approve TPS and create a committee
   8.1.8. Some concern about being able to do this fast enough
   8.1.9. Mitchell noted that there’s some faster processes (such as used in TC 1.7), ”survival guides”, that are shorter and faster to create (guidance documents)
   8.1.10. Evolution of the Existing Buildings committee will take this on
   8.1.11. TG2 on HVAC Security will participate – meet on Tuesday at 9AM
   8.1.12. Vote to support further development of Resilience scoping documents (10-0-0-5 CV)

9. **Adjourn**

   9.1. Motion passed (9-0-0-5-CN)

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*NEXT MEETING: Sunday, January 13, 2019, Atlanta, GA*
TC 2.8 Web Site
http://tc0208.ashraetcs.org

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Note: ASHRAE does not operate this list. Please do not ask them for help. If you have any questions, please contact: Jason Glazer JGlazer@gard.com

Thanks to Jason and GARD Analytics for hosting this list!

Upcoming Conferences:
2019 Winter Conference: Atlanta, GA
2019 Annual Conference: Kansas City, MO

Information on these ASHRAE Conferences can be found on ASHRAE’s website under Events – www.ashrae.org