TC/TG/TRG MINUTES COVER SHEET

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

<table>
<thead>
<tr>
<th>TC/TG/TRG NO.:</th>
<th>4.5</th>
<th>TC/TG/TRG TITLE:</th>
<th>Fenestration</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE OF MEETING:</td>
<td>Jan 23, 2018</td>
<td>LOCATION:</td>
<td>Chicago, IL</td>
</tr>
<tr>
<td>DATE ISSUED:</td>
<td>Jan 25, 2018</td>
<td>RECORDED BY:</td>
<td>Thanos Tzempelikos</td>
</tr>
<tr>
<td>Name</td>
<td>Affiliation</td>
<td>E-Mail</td>
<td>Member (VM, CM, Guest)</td>
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<td>Guest</td>
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</tbody>
</table>

Total voting members: 7  
Voting members present: 5

**SCOPE:**

TC 4.5 is concerned with the identification and evaluation of all physical properties of (1) glasses and other glazing materials, (2) shading and shielding materials and devices, and (3) control devices and strategies which influence the radiant, conduction, and convection transfer of both heat and light through fenestration systems. It is also concerned with the development of procedures for calculating and measuring solar heat gain, daylight admission, and heat transfer through fenestration systems.

**COMMITTEE AND MEETING INFORMATION**
TC Web Site: http://tc0405.ashraetcs.org

INTRODUCTIONS AND ROSTER CHECK
Meeting started at 2:00pm. Voting 7, present 5.

APPROVE AGENDA
John Hogan moved; Sagar Rao second; Agenda was approved unanimously (5-0-0).

APPROVE MINUTES FROM PREVIOUS MEETING
John Hogan moved; Sagar Rao second; Agenda was approved unanimously (5-0-0).

ANNOUNCEMENTS (TC Chair)
- Roster changes: The roster was reviewed by the TC and changes are submitted to TAC.
- TC/TG/TRG Chairs announcements

TC LEADERSHIP
- Thanos is secretary, and Willie is program subcommittee chair, and Chris Mathis is standards subcommittee chair starting July 2018.
  John’s term as 90.1 liaison ends in June 2018. John moved that Charlie is the new TC 4.5 liaison to 90.1. Roger second. Approved unanimously (5-0-0). Charlie will send e-mail to Drake Erbe, Chair of SSPC 90.1 informing him of the change.

Voting membership reviewed

LIAISON REPORTS

Technical Activities Committee (TAC)
TAC liaison present and discussed programs for next meetings and roster reports.

Standards
No record in minutes

Research Administration Council (RAC)
RAC liaison present and briefly discussed research projects updates.

Conferences and Expositions Committee (CEC)
No liaison present

Handbook Committee
No liaison present

Chapter Technology Transfer Committee
No liaison present

ASHRAE Learning Institute (ALI) / Professional Development Committee (PDC) –
No liaison present

Special Publications
No liaison present

Standards (John Hogan)
No update
SUBCOMMITTEE REPORTS

Calculation Methods (Charlie Curcija)

Handbook (Peter Lyons)
Peter Lyons presented potential chapter updates.

Research (Sagar Rao)

- RP- 1710 - the project monitoring subcommittee met and there was a presentation by the contractors. The project is generally on track. However, the PMS needs to see (i) detailed results for all types of sky conditions (representative days) with reported work plane and vertical illuminance, lighting energy use, etc, for each type of shading and control used. Also, the modeling part is under development with no solid results. Use of Daysim or Radiance with small time steps is recommended. Finally, the A/C energy savings can be reported as well. The PMS will propose a call before the next quarterly report to discuss the above.
- RP-1414 - The PMS proposed that the project is terminated since no updates have been delivered for a long time, despite the extensions provided. Sagar moved to terminate; John second; approved unanimously (5-0-0). RP-1414 is terminated. The PMS needs to provide a statement with explanation to RAC. Also the TC would like to rebid and will ask RAC for options.
- WS 1789- RAC has reviewed and conditionally accepted the WS. Comments were sent to Charlie but they were from a previous version; also Aziz did not receive the comments. Charlie and Sagar to get correct comments from RAC and provide to Aziz asap so a reply to comments can be sent quickly.

Standards (John Hogan)
John provided a brief update on 90.1. There is a will to update fenestration criteria (recommended U-values factors and SHGC values), but changes will be small.

Programs (Thanos Tzempelikos chaired)
There are no seminars for the summer meeting in Houston (Feb 9 is the deadline). For the next winter meeting in Atlanta, the deadline for conf. abstracts and technical papers is March 8.

TC 4.5 Website (Sagar Rao)
Sagar R. - Will upload minutes and materials to ASHRAE website.

OLD BUSINESS
None.

NEW BUSINESS
None.

ADJOURN
Approximately 4:00 pm

Respectfully submitted by Thanos Tzempelikos (secretary)
January 26, 2018