AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.
Hyatt Regency– Long Beach

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 9.3  DATE  6/26/17

TC/TG/MTG/TRG TITLE Transportation Air Conditioning

DATE OF MEETING  6/26/17  LOCATION Long Beach CA

<table>
<thead>
<tr>
<th>MEMBERS PRESENT</th>
<th>YEAR APPTD</th>
<th>MEMBERS ABSENT</th>
<th>YEAR APPTD</th>
<th>EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE</th>
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<tbody>
<tr>
<td>Richard Fox (Chair)</td>
<td>1998</td>
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<td>Byron Jones (Vice Chair)</td>
<td>1987</td>
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<td>Jerome Johnston (Sec)</td>
<td>2015</td>
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<td>Andreas Bezold</td>
<td>2015</td>
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<td>Kevin Glover</td>
<td>2015</td>
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<tr>
<td>Ken Hesser</td>
<td>2007</td>
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<tr>
<td>G.D. Mathur</td>
<td>2003</td>
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<tr>
<td>James Bushnell</td>
<td>1988</td>
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<td>Donald Leblanc</td>
<td>2015</td>
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DISTRIBUTION

All Members of TC/TG/MTG/TRG plus the following:

<table>
<thead>
<tr>
<th>TAC Section Head: Krishnan Gowri</th>
<th><a href="mailto:SHx@ashrae.net">SHx@ashrae.net</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters: (Research, Standards, ALI, etc.)</td>
<td>See ASHRAE email alias list for needed addresses.</td>
</tr>
<tr>
<td>Manager Of Research &amp; Technical Services: Mike Vaughn</td>
<td><a href="mailto:MORTS@ashrae.net">MORTS@ashrae.net</a></td>
</tr>
</tbody>
</table>
Meeting Attendance
Includes everyone that attended TC 9.3 and any of the subcommittee meetings. The GPC 23 committee meeting is incorporated into the TC 9.3 Rail Subcommittee meeting. Membership designation shown below relates only to TC 9.3 and does not reflect GPC 23 membership.

Richard Fox  Honeywell  rfox1956@gmail.com  voting
Byron Jones  Kansas State Univ.  jones@ksu.edu  voting
Jerome Johnston  Boeing  jerome.i.johnston@boeing.com  voting
G.D. Mathur  Nissan/Calsonic  gd_mathur@ck-mail.com  voting
James Bushnell  HVAC Consulting  j bushnell@roadrunner.com  voting
Donald LeBlanc  NRC Canada  don.leblanc@nrc.ca  voting
Catherine Thibaud-Erkey  UTC  thibauc@utc.com  non-voting
Rene Beaulieu  Bombardier  rene.beaulieu@rail.bombardier.com  non-voting
Stephen Trent  Boeing  stephen.m.trent@boeing.com  non-voting
Rahul Dixit  LTK  rdixit@ltk.com  non-voting
Thad Rogowski  Mitsubishi Electric  Thaddeus.rogowski@meppi.com  non-voting
Hugh Ferdows  Sutrakusa  hferdows@sutrakusa.com  guest
Georgi Kazachki  Dayton Phoenix  kazachki@comcast.net  guest

Call to Order & Establishment of Quorum

Meeting was called to order by Chair Richard Fox at 3:00 p.m., June 26th 2017. Quorum was established with 6 of 9 voting members in attendance.

Old Business
Approval of Minutes. G.D. Mathur motioned to approve minutes from the Las Vegas Winter meeting (1/30/17). Byron Jones seconds. 6 votes to approve. Approved unanimously.

New Business

Research Committee Report
A recap of the research breakfast was discussed. Topics included RTARS, innovative research grants and IP rights. Unsolicited research proposals have to follow the normal processes. Grants and aid are intended for graduate students. Link research info to the handbook.

Handbook Sub-Committee
Discussed deadlines and actions for the four chapters 10, 11, 12, 13. For Chapter 10, G.D. Mathur will send out latest version to the updated roster, ECD July 2017. For Chapter 11, Doug Eaton is the lead and there are many updates needed. For Chapter 12, Richard Fox to confirm current publication, incorporate edits and work on appendix to add research section. For Chapter 13, Jim Bushnell will coordinate contacts for a review.
Automobile Subcommittee Report and Issues requiring Committee Action
Discussed ideas for RTARS surrounding Volatile Organic Compounds (VOCs) research.

Mass Transit/Rail Sub Committee Report and Issues requiring Committee Action
Rene Beaulieu lead the discussion. Discussed Guideline 23, Continuous vs periodic maintenance, Research and Program.

Aviation Subcommittee Report and issues requiring Committee Action

For Standard 161-2013, Addenda a, b, and c were already approved for publication and are available online at no charge under the “standards addenda” tab. Addendum d will be approved next week, and will be available online for free shortly thereafter. Standard 161 will be republished with these four addenda early in 2018.

For Guideline 28-2016, the next publication date is 2021. If we have any necessary addenda, we must create and then incorporate them before that next publication cycle. Richard asked Mark Weber to circulate a Word version of the Guideline 28-2016 to the committee for review and additions, as part of the addenda revision process. January meeting agenda will include an item to discuss. Committee members review Guideline 28 and sent proposed changes to either Richard/Judith or the full committee not later than November 3 (a date that may change, pending report back from Richard on room scheduling deadlines).

Ship subcommittee Report and issues requiring Committee Action
None.

Program Report
Abstracts due Aug 28th. Application deadlines for papers and seminars were shared.

Research Planning
Research project 1262-2 was discussed. Mike Vaughn gave a draft final ECD of June 30th 2017. The project monitoring committee will hold vote via an electronic ballot, if able.

Byron Jones discussed an RTAR to support Standard 161-2013 bleed air sensor requirement. Discussed previous testing relating to ultrafine particles. Motion to approve RTAR is suspended for some updates and review by committee. Will hold an electronic vote after comments have been incorporated by author.

Other New Business
None.
Adjournment

G.D. Mathur moves to adjourn, Bryon Jones seconds. Motion passes. The meeting was adjourned at 4:10PM.