AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.
1791 Tullie Circle, N.E./Atlanta, GA  30329
404-636-8400
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.)

TC/TG/TRG NO_________________________ TC 10.02  DATE____________________ June 24th, 2013

TC/TG/TRG TITLE_________________________ Automatic Ice Making Plants and Skating Rinks

DATE OF MEETING____________________ June 24th, 2013  LOCATION_ Denver

<table>
<thead>
<tr>
<th>MEMBERS PRESENT</th>
<th>YEAR Appointed</th>
<th>MEMBERS ABSENT</th>
<th>YEAR Appointed</th>
<th>EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wayne Borrowman (M)</td>
<td>2009</td>
<td>Jim Shepherd (CM)</td>
<td>1990</td>
<td>Ken Cooper – Section Head</td>
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<tr>
<td>John Scot (M)</td>
<td>2010</td>
<td>Al Podhorodeski (CM)</td>
<td>2004</td>
<td>Pradeep Bansal - liaison</td>
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<tr>
<td>Donald Siller (M)</td>
<td>2007</td>
<td>Ron Strong (CM)</td>
<td>2004</td>
<td>Eric Adams - TAC</td>
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<tr>
<td>John Sluga (CM)</td>
<td>2012</td>
<td>Roberto Sunye (CM)</td>
<td>2004</td>
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<tr>
<td>Paul Kozlov (M)</td>
<td>2012</td>
<td>Robert Burdick (M)</td>
<td>2007</td>
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<td>Greg Scrivener (CM) v</td>
<td>2009</td>
<td>William McCartney (CM)</td>
<td>2002</td>
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<td>John G Davis v</td>
<td>2012</td>
<td>Mark MacCracken (M)</td>
<td>2007</td>
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<td>Daniel Dettmers</td>
<td>2013</td>
<td>Jon Edmonds (M)</td>
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<td>Ronald Vogl (CM)</td>
<td>2008</td>
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<td>Bill Wladyka (M)</td>
<td>2011</td>
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<td></td>
<td></td>
<td>Reinhold Kittler (M)</td>
<td>2010</td>
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</tr>
</tbody>
</table>

DISTRIBUTION

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

TAC Section Head: SH10@ashrae.net  
TAC Chair: TACChair@ashrae.net  
All Committee Liaisons As Shown On TC/TG/TRG Rosters: PL10@ashrae.net RL10@ashrae.net hbr1@ashrae.net hbr6@ashrae.net CTTC10@ashrae.net SL10@ashrae.net PubChair@ashrae.net PDC@ashrae.net

Eric Adams  
Brian Becker

<table>
<thead>
<tr>
<th>Position</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager Of Standards; <a href="mailto:MOS@ashrae.net">MOS@ashrae.net</a></td>
<td>Claire Ramspeck</td>
</tr>
<tr>
<td>Manager Of Research &amp; Technical Services; <a href="mailto:MORTS@ashrae.net">MORTS@ashrae.net</a></td>
<td>Mike Vaughn</td>
</tr>
<tr>
<td>Research Liaison</td>
<td>Pradeep Bansal</td>
</tr>
</tbody>
</table>
ITEM NO. | ITEMS | ACTION | REQ’D BY
--- | --- | --- | ---
..1 | Call to Order: By Wayne Borrowman 4:15pm | | |

**Preliminaries:**

.2 a. Self introduction to members and guests.
   b. Attendance sheet circulated.  
   c. Quorum established - Roster shows 6 voting members, 4 present.  
   Eric Adams: presented Certificate of Appreciation to Wayne Borrowman, reminded about adherence to ASHRAE Code of Ethics.  
   Formed paper review panel, names to be emailed to Eric Adams and Wayne Borrowman

**Approval of Agenda:**

.3 a. Listing and corrections to voting members.

**Approval of Previous Minutes**

.4 Approval of Dallas MoM  
   a. MoM amended  
   b. John Scot motioned to accept the minutes from Dallas meeting.  
   Don Siller seconded the motion.  
   d. Minutes accepted.  

**LIAISON REPORTS**

**Chairman’s Report**

.5 a. Daniel attended the Chairs’ Breakfast and updated on news

**Handbook Subcommittee**

.6 a. Chair John Scot; members-Wayne Borrowman; Bill Wladyka  
   b. John Scot advised that the corrected Chapters 43 and 44 are submitted with no comments to-date.  
   c. John Scott requested Reinhold to coordinate with TC10.8 with cross reference between chapters.

.8 **Research Subcommittee**
ITEM NO. | ITEMS | ACTION | REQ’D BY
--- | --- | --- | ---
a. Talk with Pradeep Bansal re the available RTAR. New simplified TAR submission form is easier. Research is important and encouraged  
b. Currently no RTAR submitted, John Scot presented RTAR in new format, the topic is Development and Validation of Space Conditioning, the Method of Load Calcs. Needs to be done by Aug’13 for submission in Sept’13. Variables (RH, DB Temp, Load Refrigeration and Load A/Conditioning) affect the integrated power consumption and quality of ice sheet. Don stressed the relevance to ASHRAE. John Scot mentioned that the consultants and engineers need the better defined load components. CFD and similar mechanisms of digitizing the load are required. Eg, data summary, regression analysis, formulating “what good shall look like”  
c. Pradeep Bansal suggested to prepare RTAR on arena space load started by Reinhold. WBorrowman, PKozlov, JScot are to assist. Tentatively teleconference to discuss the details and seek comments in Sept. Once prepared will have to be forwarded for submission to TC 10.8, for further input and co-sponsoring, comments and review.  
d. John Scot updated on results of the last Research project 1289 done in 2000: RH was omitted and not considered above 2” of the ice sheet, making the efficiency and the conditions similar to those of a coffin freezer in supermarket applications. The majr load component was radiant.  

Programs Subcommittee  
a. Deadline for Seattle conference paper Sept 23rd  
b. Deadline for NY seminars Aug 13, although the topic is not going to be very popular then as at that location the show is mostly attracting different trades. However, it is bigger than in Seattle.  
c. Don proposed to combine Research SC meeting with Program meeting. Also proposed to prepare for NY. Done moved, John Scot seconded.  

Membership Subcommittee  
a. Wayne Borrowman has submitted the roster.  
b. Don provided the updated roster at this meeting and is in the process of rolling off expired members and adding new Corresponding members to member status. Ongoing

NEW BUSINESS  

.12 Webpage needs to be hosted by ASHRAE  
Paul Kozlov Sept 2013  
.13 Paul needs the information required to access the website.

Motion to Adjourn  
John Scott motioned to adjourn at 6:10  
Second Wayne Borrowman  
Approved
Next meeting is to be held in NYC at the Winter Conference in 2014. Monday, Jan 21, 2014

These notes are considered to be an accurate account of the meeting. If any discrepancies or omissions are noted, please contact the undersigned or raise it at the meeting; otherwise these shall be deemed acceptable to all.

Secretary: Paul Kozlov