TC/TG/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/TRG No. 6.10 DATE: June 22, 2011

TC/TG/TRG TITLE: FUELS AND COMBUSTION

DATE OF MEETING: February 1, 2011 LOCATION: Las Vegas, NV

MEMBERS PRESENT MEMBERS ABSENT EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE

<table>
<thead>
<tr>
<th>Tom Butcher (VM-vchr)</th>
<th>Earl Rightmier (VM-chr)</th>
<th>John Dunlap (L/Sec-Head)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill Roy (VM-sec)</td>
<td>Hall Vargel (CM)</td>
<td>Jaap Hogeling (L-RAC)</td>
</tr>
<tr>
<td>Brian Vienot (CM-prg)</td>
<td>Paul Chanteville (CM)</td>
<td></td>
</tr>
<tr>
<td>Cory Weiss (VM-hh)</td>
<td>Frank Myers (CM)</td>
<td></td>
</tr>
<tr>
<td>George M. Kusterer (VM)</td>
<td>Bill Raleigh (CM)</td>
<td></td>
</tr>
<tr>
<td>Paul Solder (VM)</td>
<td>Dieter Goedding (BM)</td>
<td></td>
</tr>
<tr>
<td>Marc Neufcourt (VM)</td>
<td></td>
<td>Peter Novak (IM)</td>
</tr>
<tr>
<td>Larry Brand (VM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shanel Kassab (CM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike Schultz (G)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thoma Neill (G)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mehdi M. Doura (G)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key: CM = Corresponding Member, G = Guest, L = ASHRAE Liaison, IM = International Member

DISTRIBUTION

ALL MEMBERS OF THE TC/TG/TRG

TECHNICAL ACTIVITIES COMMITTEE CHAIRMAN: Craig Wray (TACchair@ashrae.net)

TAC SECTION HEAD: John Dunlap (JDunLap@DunLappartners.com)

ASHRAE LIAISONS:
Program: Lane Jackins (PL6@ashrae.net)
Research: Lawrence Markel (RL6@ashrae.net)

MANAGER OF RESEARCH: Michael Vaughn (MORTS@ashrae.net)

ADDITIONAL DISTRIBUTION: TCStaff@ashrae.net

These draft minutes have not been approved and are not the official, approved record until approved by this committee.
1. **Call to Order** - 3:30 pm, Las Vegas, NV

2. **Introductions of Attendees** - The sign-in sheet was passed around for attendees to sign. Based the composition of the TC membership and the members present at this meeting, it was determined that there was a quorum 6 of 10 VMs.

3. **Review of Minutes** – The minutes from Albuquerque, NM were reviewed, and approved 6-0-1.

4. **Review of Agenda Items** – The agenda was reviewed and amended, with the footer being corrected to reflect TC6.10 by Bill Roy and creation of Liaison Reports section.

5. **Liaison Reports** –
   1. Jaap Hogeling (L-RAC)
      i. 1388 needs TC vote for research report approval and completion of technical paper.
      ii. Student grants are available, see web site for link.
      iii. ASHRAE looking for multi-disciplinary project ideas to for MTGs.
   2. John Dunlap (L-Section 6 Head)
      i. Bring passports and invitation letter to Montreal.

6. **Chair Meeting** – Bill Roy Attended first TC Chair breakfast and chair training session meetings, very informative.
   - Section head would like to see all TC members assigned to sub-committees.
   - Need to complete TC Activity form for each meeting by Wed. 6am.
   - ASHRAE to provide “help wanted” link for TC help. Goes directly to Mike Vaughn to evaluate request and response.
   - All RTARs are due Feb. 14th.
   - Technical Paper abstracts are due Apr. 18th.
   - Present Roster is good through Montreal, new chair starts July 1, 2011.
   - From Chair Training Session: Chairs should review roster at each meeting, ASHRAE provides chair with new roster update workbook, there is an emergency roster procedure for quick roster updates/edits, VM & CM rollover every 4 yrs, must have one year of CM before the 4 yrs of VM, chair and vice chair are to be active ASHRAE members, chair can have additional 2 yrs of VM if term requires (3 yrs w Sec approval), quorum = 50%VM+1, std approval vote is 50% of quorum, work statement & RTAR approval vote is 66% of quorum, all subcommittee participants have voting rights.

7. **Handbook** – Cory Weiss
   1. Voted 6-0-0 to submit Systems & Equipment chapters 30 & 34 as presently written for republication.
   2. Tom Neill requested a copy of chapter 30 for future commenting
8. Program – Tom Butcher
   2. Tom Butcher to propose biodiesel seminar for Montreal. Can anyone get a ULC636

9. Research – Tom Butcher
   1. High Altitude Boiler and Water heater Research Project 1388
      i. Paul Sohler, Earl Rightmier and Tom Butcher reviewing GCI report and providing feedback to Carl.
   2. Combustion Resonance in Boiler Research Proposal 1517
      i. Peter Baade received approval from both boiler manufactures to allow 1517 testing to occur at Worgas (premix burner manufacturer in KY). Work at Worgas limited to boiler testing. All flame transfer function testing to occur at U of K.
      ii. SECAT (U of K) provided project update, reviewing data from both boilers. Identified different resonant phenomena for each boiler. Reviewed flame transfer function methodologies. Provide plan update.
   3. Vent Software Proposal 1497
      i. Larry Brand, Hall Virgil and Tom Butcher to hold conference call on rewrite of 1497 to focus on the theoretical approach taken in vent simulation. Such a proposal could then aid in the rewrite of ASHRAE’s System & Equipment; Chimney, Vent and Fireplace Systems chapter.

4. Future Research Topics
   i. Condensing cast iron boilers
   ii. Categorization of water heaters
   iii. Vent simulation testing including UL636 validation
   iv. Field study of portable combustion analyzers
   v. Future fuels; Biofuels, Pellets,…

10. Web Site – Tom Butcher
    1. TC6.10 Website up and running. http://tc610.ashraetcs.org/. Or follow ASHRAE>shortcuts>tech committee> “scroll down to TC6.10”. Structure includes: Public area, Private area, Contact area, Program page, Research page, Chapter Scope, Hit Counter and Links area. Need to add Program page and Research page with past programs and research projects. Can page be used to solicit new participants or bidders?
    2. Need to add Secat presentations. Confirm commercialization policy compliance first.
11. Standards – Tom Butcher
   1. 118.2 Reviewing draw patterns. Maybe part load model could be used to modify draw pattern testing?

12. Membership – Bill Roy covered roster from chair email.

<table>
<thead>
<tr>
<th>No.</th>
<th>Membership for Montreal</th>
<th>Correct Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Earl Rightmier (VM-chr)</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>Tom Butcher (VM-vchr)</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>Bill Roy (VM-sec)</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>Cory Weiss (VM-hb)</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>George M. Kusterer (VM)</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>Paul Sohler (VM)</td>
<td>Y</td>
</tr>
<tr>
<td>7</td>
<td>Marc Neufcourt (VM)</td>
<td>Y</td>
</tr>
<tr>
<td>8</td>
<td>Larry Brand (VM)</td>
<td>Y</td>
</tr>
<tr>
<td>9</td>
<td>Hall Virgil (VM)</td>
<td>Y</td>
</tr>
<tr>
<td>10</td>
<td>Shamel Kassab (VM)</td>
<td>Y</td>
</tr>
<tr>
<td>11</td>
<td>Dieter Goettling (IM)</td>
<td>?</td>
</tr>
<tr>
<td>12</td>
<td>Peter Novak (IM)</td>
<td>?</td>
</tr>
</tbody>
</table>

13. Old Business - None

14. New Business - None

Meeting ended at 6:30pm.

Respectfully Submitted,
Bill Roy