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**DRAFT**

**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. 06.10 DATE 7/17/17

TC/TG/MTG/TRG TITLE Fuels and Combustion

DATE OF MEETING 6/27/17 LOCATION Long Beach, CA

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Tom Neill	2015	Mehdi M Doura	2015	Michael Beisheim
Cory Weiss	2016	Shamel Kassab	2015	Dave Binz
Aykut Yilmaz	2015	George Kusterer	2014	Richard Freet
Diane Jakobs	2015	William Roy	2015	Paul Glanville
Larry R. Brand	2015			Tim McNulty
Tom Butcher	2015			Keith Page
Craig Grider	2015			Chris Pickens
Jennifer Guerrero-Ferreira	2015			Bryan Rocky
Paul Sohler	2016			Harvey Sachs
				Kumar Sivagnanam

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

TAC Section Head: <b>Mark Hegberg</b>	SH6@ashrae.net
All Committee Liaisons: Maggie Moninski, Chapter Tech. Transfer Chair Nicolas Lemire, Handbook Liaison Research Liaison Standards Liaison	CTTC6@ashrae.net <a href="mailto:Hbs4@ashrae.net">Hbs4@ashrae.net</a> <a href="mailto:RL6@ashrae.net">RL6@ashrae.net</a> SL6@ashrae.net
Mike Vaughn, Manager Of Research & Technical Services	MORTS@ashrae.net

Note: These draft minutes have not been approved and not the official, approved record until approved by the TC.

## ASHRAE Technical Committee 6.10

### MINUTES June 27, 2017 Long Beach, California

#### 1. Call to Order

Chair Tom Neill called the meeting to order on June 27, 2017, at approximately 3:40 pm. Participants were as follows:

##### Voting Members Present

Tom Neill, Chair  
Larry R. Brand  
Tom Butcher  
Jennifer Guerrero-Ferreira  
Craig Grider  
Diane Jakobs  
Paul Sohler  
Cory Weiss  
Aykut Yilmaz

##### Voting Members Not Present

Mehdi M Doura  
Sham Kassab  
George Kusterer  
William Roy

##### Others Present

Michael Beisheim  
Dave Binz  
Richard Freet  
Paul Glanville  
Tim McNulty  
Keith Page  
Chris Pickens  
Bryan Rocky  
Harvey Sachs  
Kumar Sivagnanam

#### 2. ASHRAE Code of Ethics Commitment

The chair reviewed the ASHRAE code of ethics.

#### 3. Introduction of Attendees

Members and guests introduced themselves.

#### 4. Sign-in and Quorum Determination

Attendees were requested to sign in (attached). The quorum requirement was met with 9 of 13 voting members in attendance.

#### 5. Review and approval of the Long Beach Agenda

Chair Tom Neill reviewed the Agenda. The committee approved the agenda.

#### 6. Review and approval of the Las Vegas Minutes

*These draft minutes have not been approved and are not the official, approved record until approved by this committee.*

Upon a motion by Paul Sohler, duly seconded by Cory Weiss, the committee voted to approve the Las Vegas minutes as distributed.

**MOTION PASSED.** 8-0-0-4-CNV.

## 7. Liaison Reports

### A. Research (Harvey Sachs)

Harvey Sachs reported that TC 6.10 has no proposed or active research projects at this time. He provided the committee advice for writing successful Research Topic Acceptance Requests (RTARs) and work statements, including collaboration with and involvement of other ASHRAE technical committees. He also noted that the Research Advisory Committee (RAC) is interested in and there is a specific budget for developing design guides through research projects. He remarked there is currently no queue for ASHRAE funding of research projects. He noted that there is now an Innovative Research Award and Innovative Research Grants to recognize and sponsor innovative projects.

He noted that he will be rolling off as liaison, and that Omar Abdel-Aziz will be the new Section 6 RAC liaison after July.

## 8. Handbook

Michael Beisheim reported that he is incoming handbook chair. He encouraged authors to contact him if there are any issues with using the Handbook Authoring Portal, and noted that Internet Explorer 10 is the best browser to use for it.

Chapter 28 is the next chapter that is due for an update. There are currently no actionable handbook items.

## 8. Research

The committee reviewed the RTAR distributed with the meeting notice, Exhibit 1, proposing research on combustion oscillation in fire tube water heaters. Butcher suggested noting in the RTAR that the previous research on combustion oscillation sponsored by TC 6.10 won an ASHRAE award. Guerrero-Ferreira suggested adding videos demonstrating combustion oscillation as a project deliverable. Sohler and others agreed that the RTAR needs to explain why additional research is needed for water heaters.

Upon a motion by Butcher, duly seconded by Weiss, the committee voted to approve the RTAR as submitted by Roy with understanding that a working group will make changes to the RTAR as noted in the discussion described above.

**MOTION PASSED.** 8-0-0-4-CNV.

**ACTION:** Sohler, Doura, and Butcher to review the RTAR and draft changes noted above.

Dave Binz, TC 6.6 Research Committee Chair, noted he would be letter balloting TC 6.6 to approve RTARs on other projects, and could ballot this RTAR in conjunction with it. The committee agreed to request that TC 6.6 co-sponsor the project.

**ACTION:** Neill to provide the completed RTAR to TC 6.6 so it may consider it for co-sponsorship.

Diane Jakobs reported that TC 6.3 is considering an RTAR to support changes to the ASHRAE Standard 103 method of test. Butcher also noted that jacket losses measurements and assumed loss multipliers need some development and/or validation with research. The committee agreed it would be interested in reviewing the RTAR.

The committee discussed developing an RTAR on pellet storage.

**ACTION:** Tom Butcher to draft an RTAR on pellet storage.

The committee discussed developing an RTAR for research on how unvented heaters affect indoor air quality. Yilmaz noted that SSPC 62.2 is currently working on an RTAR on a similar subject and suggested that the committee let SSPC 62.2 take the lead on drafting an RTAR. The committee agreed with that approach.

The committee discussed research on common venting approaches for non-category I appliances and the ongoing AHRI research on a similar topic.

**ACTION:** Weiss to review projects at AHRI and develop an RTAR.

Beisheim noted that there would be value in research to develop K coefficients for boot tees. This work would be of interest to TC 5.2.

**ACTION:** Tim McNulty to draft RTAR to develop K coefficients for boot tees.

Bryan Rocky, representing the Multidisciplinary Task Group (MTG) on Operations and Maintenance Activities affecting System Efficiency, noted that the MTG is interested in research ideas for how maintenance of combustion equipment could affect system efficiency. He offered to liaise with the MTG on behalf of the committee. A member suggested that the committee consider research to evaluate combustion gas analyzers.

Larry Brand noted that a recently published paper claimed high methane leakage rates from gas appliances, and that the committee could consider and evaluation or follow-up research on the subject.

**ACTION:** Brand to distribute the research report he cited on the topic to TC 6.10 committee members.

## 9. Web Site

Jennifer Guerrero-Ferreira reported that she is outgoing as a committee member and proposed that Chris Pickens, her replacement at Bekaert Combustion Technology, also replace her as the committee's web master. She reported the website is up to date, including any available minutes of the handbook

subcommittee. Upon a motion and second, the committee voted to accept the nomination of Pickens as the TC 6.10 webmaster.

**MOTION PASSED.** 8-0-0-4-CNV.

## 10. Programs

Sohler reported that a tour of the Gas Technology Institute has been added as an official ASHRAE tour for Chicago. It will take place on the afternoon of Monday, January 22, 2017. Signup will be through the official ASHRAE registration.

Tom Butcher summarized a seminar proposal he developed for consideration by TCs 6.1 and 6.10 titled “Biomass Hydronic Heating, Achieving High Performance Systems in Residential and Commercial Applications.” The program discusses emissions controls, test procedures, staging of hybrid systems, thermal storage, installation, and commissioning. He reported that TC 6.1 agreed to cosponsor it with some suggested changes. Upon a request from Butcher, TC 6.10 also agreed to co-sponsor the seminar. Upon a request for a volunteer, Sohler agreed to chair the session. A member suggested that Butcher reach out to the applicable Chicago track chair to make sure that the proposed format is acceptable.

Butcher suggested proposing a track on renewable heating and cooling for the next available meeting.

## 11. Standards

Diane Jakobs and Craig Grider reported on several ASHRAE standards activities of interest to the committee:

- Standard 103 has been voted for publication, but TC 6.3 is already considering new changes.
- SPC 118.1 approved to request a scope change to include gas-fired heat pump water heaters.
- SPC 155P is about 6 months away from a public review. It has been developing test methods to measure jacket losses with a thermal imaging camera.
- SPC 204 is reviewing some scope and testing issues, and is about 6 months away from a public review.
- SPC 118.2 is working on fixing the DOE test procedures and is preparing for a second publication public review vote at the Chicago meeting.
- SPC 124 is working on defining its product scope as it considers new methods of test to determine combined appliance performance.

## 12. Membership

Chair Tom Neill reviewed the membership roster and changes effective on July 1, 2017, as follows:

No.	Member	Anniversary Date	Sub-committee
1	Cory Weiss (VM-chair)	7/2016	
2	Tom Butcher (VM-vchr)	7/2015	Program
3	Aykut Yilmaz (VM-sec)	7/2015	
4	Jennifer Guerrero (VM-web)	7/2015	
5	William Roy (VM-re)	7/2015	Research
6	Paul Sohler (VM)	7/2016	

7	Larry Brand (VM)	7/2015	
8	Mehdi M Doura (VM)	7/2015	
9	Craig Grider (VM)	7/2015	
10	Diane Jakobs (VM - stds)	7/2015	Standards
--	Michael Beisheim (CM)	--	Handbook
--	Chris Pickens (PCM)	--	Web Master

Current voting members Kassab, Kusterer, and Neill are rolling off the committee on July 1.

**ACTION:** Neill to make an emergency request to remove Guerrero-Ferreira from the committee at her request.

### 13. Old Business

There was no old business.

### 14. New Business

#### Research Summit for Houston

The committee discussed whether it should propose any items for the Research Summit, but it did not come up with any items for consideration.

### 15. Next Meeting

The next meeting will be held at the ASHRAE 2018 Winter Conference, January 22-24, 2018, in Chicago, Ill..

### 16. Adjournment

The meeting was adjourned at approximately 5:55 p.m.

Respectfully Submitted,

Aykut Yilmaz  
Secretary

TC 6:10

SIGN UP

LONG BEACH

6/27/17

NAME	COMPANY	EMAIL
Tom NEILL	MESTEK	tneill@mestek.com
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