

Minutes for

ASHRAE TECHNICAL COMMITTEE 6.3 CENTRAL FORCED AIR HEATING AND COOLING SYSTEMS,

Tuesday, January 23, 2018, 1:00-3:30 PM;
Palmer House, Chicago.

1. Call to Order and Introductions – Review Scope and Purpose of TC 6.3

Chairman Kevin Mercer opened the meeting with introductions, and a review of the ASHRAE code of ethics.

(See full Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>.)

VM Present	Term Expires	Position	Affiliation
Kevin Mercer	06/30/2019	Chair/Prog SC Chair	Carrier
Bert Phillips	06/30/2018	Vice Chair	UNIES
Lawrence Brand	06/30/2018		Frontier Energy
Byron Horak	06/30/2018		Intertek
Mark Olsen	06/30/2018		Lennox
George Yaeger	06/30/2020	Webmaster	Sears
Anuj Mistry	06/30/2019	Secretary	Daikin U.S. Corporation
Jeffrey Munk	06/30/2020		ORNL
Wayne Kraft	06/30/2020		Ingersoll Rand/Trane
Roy Crawford	06/30/2020	Research	JCI
Bill Roy	06/30/2018		Timco Rubber

Corresponding Members and Guests Present

Diane Jakobs	CM	Handbook SC Chair	Rheem
Ted Wayne	Guest		AHRI
Caroline Henley	Guest		AHRI
Marcus Thaw	Guest		AHRI
Dawen Lu	Guest		Lu + Smith Engineers
Randy Palm	Guest		Allied Air
Jim Laverette	Guest		Southern Company
Eric Bery	PCM		Lennox
Will Kowald	CM		Lennox
Eric Dickson	Guest		Seal Bond
Shawn Ohara	Guest		SMACNA
Karl Seggerman	Guest		HEIS
Scott Creamer	Guest	Program	Rheem
Detlef Westphalen	Guest		Navigant
Jon Winkler	CM		NREL
Rupam Singla	Guest		LBNL

2. Review Agenda, Voting Membership (Roster update) and establish quorum

Meeting was called to order at 1:05 PM. Chairman Mercer reviewed the agenda, followed by a review of the TC membership. Based on member feedback, new positions were assigned to volunteers as indicated below.

Name	End Year	Position
Voting		
Kevin Mercer x	6/30/2019	Chair
Elbert Phillips x	6/30/2019	Vice Chair
Anuj Mistry x	6/30/2019	Secretary (New)
Roy Crawford x	6/30/2020	Research Subcommittee Chair
Larry Brandt x (Jon Winkler)	6/30/2018	Member
Byron Horak x (open)	6/30/2018	Member
William Roy x (Diane Jacobs)	6/30/2018	Member
Mark Olsen x (Eric Berg)	6/30/2018	Standards Subcommittee Chair
Wayne Kraft x	6/30/2020	Member
Jeffrey Munk x	6/30/2020	Member
George Yaeger x	6/30/2020	Webmaster (New)
Non-voting		
Bryan Rocky		Program Subcommittee Chair (New)
Diane Jakobs, PhD		Handbook Subcommittee Chair
Roy Crawford, PhD		MTG.LowGWP

Based on the members present at the meeting, Chairman Mercer announced that a quorum was present.

3. Approval of previous minutes

A motion was made, duly seconded, members unanimously approved the Long Beach 2017 meeting minutes (10-0-0)

4. Announcements

Chairman Mercer briefed the TC on information received at the TC Chairs' Breakfast. Updates from the TC Chairs Breakfast are as follows:

- **Historical Committee:**
Chairman Mercer announced that the Historical committee presented their intent for the presentation on 125 years of AHSRAE. Historical committee wants to sponsor some programs, highlighting the last century in ASHRAE and achievement. The TC's are welcome to develop a program for the celebration.
- **Publications Committee:**
Chairman Mercer announced that the Publications Committee is encouraging ASHRAE members to write articles for the ASHRAE journal. It is a resource that any ASHRAE member can use to publish or report on the advancement of HVACR related technologies.

- Applying for Membership to TC:

Chairman Mercer announced that ASHRAE has updated the method in which they add members to TCs. ASHRAE members have access to an online link that they can use to request membership of a committee. The request goes to the Chairman of the committee and the member will be added as a provisional member. After one cycle of being a provisional member, the Chairman can change status to a VM if requested. Mr. Dawen noted that the request to membership of a committee must be done via the website only.

5. Subcommittee Reports

A. Handbook (Diane Jakobs)

Handbook Subcommittee Chairperson Jakobs reported that ASHRAE handbooks including TC 6.3 can be easily edited online using the URL authoring.ashrae.org. ASHRAE has not indicated any issues with the TC 6.3 related chapters, however, Ms. Jakobs has proposed some changes that can be reviewed by members of the TC 6.3. The TC will need to vote for approval of the standard in Atlanta, 2019 for the 2020 handbook publication.

B. Program (Mercer - interim)

Chairman Mercer reported that the Programs Subcommittee Chairman, Bryan Rocky has resigned from the Chairmanship position due to other commitments. Consequently, there are no updates from the Programs Subcommittee and Chairman Mercer solicited volunteers for that position from the members and guests present at the meeting. Members and guests were encouraged to reach out to the Chairman after the meeting to understand the requirements of the role and apply for the position.

C. Research (Roy Crawford)

Research Subcommittee Chairman, Roy Crawford, reported:

- There is a pending RTAR on electric co-heating method for determining efficiency of a heater in a building.

Subcommittee Chairman Crawford then asked for new ideas for research. Members shared the following ideas:

- Paul Haydock: Mr. Haydock raised concerns over the current cycle times in the ASHRAE 103 standard. With the advancement in furnace operation and controls, Mr. Haydock suggested that cycle times need to be better characterized in ASHRAE 103. A cyclic procedure may not be relevant anymore because the furnace operation is not the same as it used to be now that there is adaptive algorithms to control furnaces. There is a lot more off time or circulation time instead of old furnaces. Is the cycling process same as it used to be which was considered to write the ASHRAE 103 standard. Cycle times used in 103 standard were established based on thermostat characteristics and parameters (from a NIST document.) Lots of advances have been made since then, and perhaps changes may be needed based on national standardized thermostats design used today. Furthermore, he suggested that the amount of time spent in conducting the cyclical tests and the potential change in furnace efficiency representation is not balanced.

Chairman Mercer suggested that Mr. Haydock write an RTAR with volunteers from the TC. Following members agreed to participate in the working group:

- Paul,
- Larry,
- Bert,
- Roy,
- Wayne,
- Diane

Anyone else who is interested to participate in writing the RTAR should contact Mr. Haydock or Mr. Crawford.

Finally, member confirmed that the research should be conducted with an expected outcome to update ASHRAE 103 standard.

ACTION: PAUL TO SCHEDULE WG MEETINGS TO WRITE THE RTAR.

- Diane Jakobs: Ms. Jakobs raised the topic of Heat up and cool down tests. She mentioned that the P.8 committee is working on a metric for furnaces with low return air temperatures. The furnace efficiency may change if one adds ventilation air in the return.

ACTION: MS. JAKOBS VOLUNTEERED TO WRITE AN RTAR ON THE TOPIC FOR THE TC'S REVIEW AND APPROVAL.

Mr. Omar, a Research Action Committee Liaison, briefly attended the TC 6.3 to provide the following report:

- RAC has announced new submission deadlines for RTAR and WS. RTAR and WS can now be submitted before March 15th, in addition to May and August deadlines.
- Next PMS training will be held in November. Training material will be available online video.
- For the Innovative Research Grant, the RAC received 41 submissions, and 6 were asked to provide full proposals.
- 11 TRPs are being released for bids.
- ASHRAE is seeking more projects to come to RAC.
- Any member can submit an RTAR, however, if it is approved by the TC before submission, then the RAC considers it a strong RTAR and has higher chances of passing.
- ASHRAE is now managing projects using the stage-gate approach, where in payments are made to the researchers based on milestones. Consequently, RTARs and WS should now include clear milestones.
- After completion of research projects, the cognizant TC is expected to fill a form that identifies the impact of the research project on the TC and its publications. The Chairman is responsible for submitting the form to the RAC. If the TC fails to do so 3 times or more, the RAC can put restrictions on the TC activities until the forms are filled and submitted.

D. Standards (Olsen)

Standards Subcommittee Chairman, Mark Olsen, reported on the standards activities related to TC 6.3. He reported that some current standards might not meet the current ASHRAE standards

requirements for mandatory language. Consequently, the TC was requested to vote for actions on the following standards.

ASHRAE 152: Method of Test for Determining the Design and Seasonal Efficiencies of Residential Thermal Distribution Systems. A motion was made, duly seconded, members unanimously voted to:

VOTE: REVISE ASHRAE STANDARD 152 TO REFLECT MANDATORY LANGUAGE.

ASHRAE 193 – Method of Test for Determining the Airtightness of HVAC Equipment. A motion was made, duly seconded, members unanimously voted to:

VOTE: REVISE ASHRAE STANDARD 193 TO REFLECT MANDATORY LANGUAGE.

Subcommittee Chairman Olsen reported that the next steps are to request the Standards Committee to form a Special Project Committee (SPC) for both standards. The TC can recommend members to the TC, however, the Standards Committee will decide whom can participate in the SPC as a member. Members agreed that the following members will lead the SPCs for the standard revisions:

- Mark and Paul will lead 193
- Kevin will lead the 152

E. Web Site (George Yaeger)

Webmaster, George Yager, reported that he has successfully updated the website. If anyone is interested in sharing anything on the website, then it should be mailed to Chairman Mercer or George himself. The material will be posted on the website after review and approval.

6. MTG and Low GWP Meeting Reports:

- Low GWP meeting:

Mr. Crawford reported:

- Research Project 1807 - Refrigerant handling regulations around the world that apply to handling of A2L refrigerants. Mr. Crawford noted that the Low GWP group discussed how USA is behind compared to other countries. Furthermore, technicians handling the refrigerants do not have enough training.
- Research Project 1808 - Testing of field joints in severe conditions – Mr. Crawford noted that about 70% research is completed. The research project tested different types of joints and fittings for quality and leakage characteristics.

- MTG Meeting Op & Maintenance.

- No updates were provided as the liaison was absent.

7. Old Business

No old business was discussed.

8. New Business

Mr. Roy Crawford volunteered to be the official liaison provided the TC votes. A motion was made, duly seconded, the members unanimously voted to:

VOTE: NOMINATE ROY CRAWFORD TO THE LOW GWP MTG LIASON

Mr. Roy Crawford noted thermostat technology is not covered under any TC, and thus the TC 6.3 should take the initiative and cover the performance rating for thermostats. After discussion, members agreed on the following action item.

ACTION: CHAIRMAN MERCER TO REACH OUT TO KRISTIN AND CHAIR OF TC 1.4. TO REVIEW COVERAGE OF THERMOSTATS AND WHERE IT SHOULD BE COVERED.

A member noted that TC 7.5 may be interested too.

9. Adjourn

Chairman Mercer adjourned the meeting at 3:01 p.m.