



1791 Tullie Circle, N.E./Atlanta, GA 30329

404-636-8400

DRAFT 1

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 1.9 _____ DATE _____ 1/18/2021 _____

TC/TG/MTG/TRG TITLE _____ Electrical Systems _____

DATE OF MEETING _____ 1/12/2021 _____ LOCATION _____ Virtual – Teams _____

MEMBERS PRESENT (VM's in bold)	YEAR APPTD	MEMBERS ABSENT (VM's in bold)	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Gerardo Alfonso	2017	Frank Pucciano	2001	
Daryl Collerman (PCM)	2019	Robert Helt (MNQ)	1994	
Steven Faulkner	2006	John Nix (MNQ)	2007	
Charles Foster	2001	Osama Azzam (PCM)	2020	
Armin Hauer	2011	Mohammad Daoud (PCM)	2019	
Randall Higa	2016	Joao Manoel Delcidio (PCM)	2020	
Larry Markel	1997	Joaquin Ledezma (PCM)	2020	
Glenn Remington	2017	Paul Lemar (PCM)	2020	
Steve Rosenstock	2005	Kyle Mullins (PCM)	2019	
Gary Throckmorton	2000	Shadi A. A. Nejem (PCM)	2019	
Michael S. Todd	2011	Florin Daniel Popa (PCM)	2020	
		Vincent Yu (PCM)	2020	
		Ricson Chude	2017	
		Robert Crosby	2004	
		Chad Dorgan	2000	
		Charles Frazell	1997	
		Joseph Lunsford	1995	
		Ken Luther	1990	
		Ram Narayanamurthy	2013	

		John Richardson	2007	
		Pavithra Santhanam	2018	
		Colleen Smith	1994	
		Leo Stambaugh	1994	
		John Stoops Sr.	2003	
		Marvin Thedford Jr.	1990	
		Russ Tiffany	1998	
		Marija Todorovic	2005	
		William Warren Jr.	1983	
DISTRIBUTION: <i>All Members of TC/TG/MTG/TRG plus the following:</i>				
TAC Section Head:		SH1@ashrae.net		
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALI, etc.)		TACchair@ashrae.net CTTC1@ashrae.net RL1@ashrae.net HBS3@ashrae.net SL1@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.

1. CALL TO ORDER

Introduction of Members and Guests

Technical Committee 1.9 was called to order at 4:05 PM. Technical Committee Member introductions were made via Teams. Absent Members are identified on the cover sheet.

Steven Faulkner, Chair, reviewed the membership list and determined that a quorum was present (5 of 6).

2. APPROVAL OF MINUTES AND REVIEW OF ACTION ITEMS

Motion: Armin Hauer/Steve Rosenstock 5-0-0-1-CV Armin Hauer made a motion to approve the June 2020 Virtual minutes with a second from Steven Rosenstock. There was no additional discussion and the motion passed unanimously.

Report Action Items:

None.

3. TC MEMBERSHIP AND COMMITTEE APPOINTMENTS

Since the 2020 annual virtual meeting, there were two provisional corresponding members added to the roster.

- Osama Youssef Azzam
- Vincent Yu

4. CHAIR REPORTS: Steven Faulkner

Steven reported as follows:

- a. TC chair breakfast was a pre-recorded session. The handout and slide show are attached in the appendix.
- b. Once a year (preferably at or before the annual meeting), each TC needs to evaluate their purpose and determine whether to continue, merge, or disband as a TC. Also, the roster should be reviewed annually.
- c. Roster update is due Tuesday 1/26.
- d. There have been 5 TC mergers with more in the works.
- e. Research chair breakfast is Monday 2/8. Handbook training is Thursday 1/14.
- f. Seminar and Forum proposals for Phoenix are due by Monday 2/8.
- g. Professional development committee is seeking ideas for new courses (ALI).

- h. CEC seeking ideas for tracks for upcoming meetings.

Up and coming meetings: Phoenix, AZ – June 26 to June 30, 2021

5. SUBCOMMITTEE REPORTS

a. Standards: Steven Rosenstock

There is a lot going on but the ASHRAE 90 series standards have been pretty quiet.

227 is scheduled for public review later this year.

228 will reach public review sooner.

Interesting things going on between the ICC and ASHRAE. The ICC is currently utilizing a stakeholder process and moving to a consensus process. The question is, will ANSI be OK with two different standards for the same topic from two different bodies?

California Title 24 – Looking at requiring on-site PV and battery storage with restrictions on fossil fuels. Draft language is coming in late Feb and would become effective in January 2023. There is movement away from zero net energy with emphasis on de-carbonization, electrification, along with de-harmonization.

The Biden platform, which is coming quickly, seems very aggressive and interesting for ASHRAE.

b. Research: Larry Markel

During this virtual conference, Seminar 82: The Impacts and Value of ASHRAE Standards and Technology is being presented. This presentation is applying the findings of the 1848-RP research report. Larry wants to request that this be distributed to all ASHRAE members.

c. Program: John Nix & Frank Pucciano

TC 1.11 presenting seminars 68 and 69 at this virtual winter meeting (on demand), which our TC is co-sponsoring. However, one of the speakers withdrew at the last minute so there are only two speakers left.

Armin brought up the topic of sub-metering. Potential title for a forum would be, “How much time and money do you want to spend chasing bug dust?” The gist of the discussion would focus around the balance of being efficient and smart versus being vigorous and less efficient. Armin will work to try and submit something for Phoenix with help from Glenn, Steve R., and Larry.

d. **Handbook: Armin Hauer**

It was noted that virtual meetings have been quite challenging especially in communications. For example, there hasn't been any communication from our Section Head since moving to virtual meetings.

Our handbook chapter (56) needs to be complete mid-2022 so it can be published in 2023.

We have already started reviewing our handbook chapter. Frank and Steven R. have already submitted general comments. Larry commented on the new SCCR section. Armin has provided comments as well. Darryl looking for information on harmonics for phase choppers/triacs (single phase 240 VAC).

What about referencing the recently released "Smart Grid Application Guide, Integrating Facilities with the Smart Grid" which was just released by ASHRAE? This relates to TC 7.5 handbook sections as well. Larry suggested to share handbook sections between TCs for feedback. Armin will reach out to the 7.5 handbook chair.

e. **Membership: Larry Markel**

Total TC membership stands at 39 at this meeting. 6 VM, 2 MNQ, 10 PCM, 21 CM.

Larry is looking for someone else to be the membership subcommittee chair.

f. **Professional Development Committee (PDC Coordinator): John Nix**

Our TC still has Frank's class on metering and rates.

6. WEBSITE: Steven Faulkner

Website is up to date since the June virtual meeting.

7. LIAISON REPORTS

Section Head: None.

RAC: None.

TAC: None.

Handbook: None.

8. OLD BUSINESS

None.

9. NEW BUSINESS

Three folks are rolling off as voting members after the annual 2021 meeting (Steven F., Frank Pucciano, and Steve R.). Steven F. to solicit corresponding members to become voting members. Armin wants to roll back on as a voting member. It was also mentioned that ASHRAE will likely retain virtual attendance at future conferences post COVID.

The group discussed there is no justification to merge and to carry on as a TC as we are. We need to continue to push for cross pollination and co-sponsoring with other TCs.

Lastly, Armin proposed to revise the TC's scope by expanding beyond HVACR. Why...ASHRAE also addresses lighting, elevators, escalators...and even EV charging stations. Larry suggested "interact with the BUILT environment". A motion was made by Armin with a 2nd by Steve R. **The motion passed 5-0-0-1 CV.** Steven F. will send this proposal to TAC for approval.

Current Scope: TC 1.9 is concerned with electrical systems insofar as they interact with the HVACR industry.

Proposed Scope: TC 1.9 is concerned with electrical systems insofar as they interact with the built environment.

10. ANNOUNCEMENT OF NEXT MEETING

Chairman Steven Faulkner announced that the next meeting would hopefully be held in Phoenix, Arizona in June 2021 at our usual time on Tuesday.

Steven thanked everyone for attending the meeting.

11. ADJOURNMENT

The meeting was adjourned at 5:44 PM with a motion by Armin and 2nd by Steve R. **The motion passed 5-0-0-1 CV.**

Respectfully Submitted,

Michael S. Todd
Secretary

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Appendix I – Section 1 TAC Breakfast Presentation & Handouts, and Publications



TC Breakfast
Reminder Handout ^



TC Chairs breakfast
W21 Final.pdf



2021 TC Chairs Pub
Handout.pdf