



1791 Tullie Circle, N.E./Atlanta, GA 30329
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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 5.07 DATE February 3, 2020

TC/TG/MTG/TRG TITLE Evaporative Cooling

DATE OF MEETING February 3, 2020 LOCATION Orlando, FL

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Steve Slayzak	2016	Vishnu Sreeram	2017	Nicholas Lea
William Truong	2017			Larry Smith
G.D. Mathur	2017			Dave Binz
Sukru Erisgen	2017			Galen Gerig
Richie Mittal	2016			David Baird
Mike Scofield	2016			Sharon Thomas
				Joel Bynton
				Andy Cochrane
				Philip Lepoudre
				Ed Necoechea
				Xiuwei (Emily) Yin
				Mark Miller
				Bill Worek
				Duncan Green
				Jon Seeley
				Dennis Love Day

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

TAC Section Head:	SHx@ashrae.net Where x is the section number
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALI, etc.)	See ASHRAE email alias list for needed addresses.

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

MEETING MINUTES

ASHRAE TC-5.07 Evaporative Cooling
Monday February 3rd, 2020
4:15 – 6:30 PM,
Hilton Orlando, Lake Virginia A

I. CALL TO ORDER

Steven Slayzak called the meeting to order at approximately 4:24 pm.

An attendance sign-in sheet was circulated and signed by those in attendance.

A roll call was held, six (6) of the seven (7) voting members were present to start the meeting, establishing that a quorum was available to conduct business.

The minutes from the Atlanta ASHRAE TC- 5.7 meeting were read and approved by a unanimous vote of the voting members.

II. APPROVAL OF PREVIOUS MINUTES

A motion was made by Steve to approve the minutes (2nd G.D. Mathur). The motion was carried.

(6) Approved (0) not approved (1) Not attending, (0) Abstentions

III. Chairs Report

- TC 5.07 Basecamp website now setup and active
- ASHRAE would like to consolidate ~130 TC's and SPCS, etc. into 30
 - Main driver is finding meeting space
 - Mike and Steve shared the following activities that could involve TC 5.07
 - Mike/ Pat/Dr. Stephanie Taylor co-authoring a paper on coupling heat recover to a humidification (evaporative cooling system)
 - Using the heat recovered from the building to evaporate water off an evaporative media system for addition of humidification to the supply air
 - Need help getting ASHRAE to do something with the paper – it was sent to ASHARE for review
 - **Action:** Steve to raise on basecamp for discussion
 - Would like to get it in the ASHRAE Journal
 - Does TC 5.07 want to support this
 - Maybe put it in the proposed design guide or guide line
 - No one on the TC has offered to take ownership on the guideline
 - Steve mentioned that he is working on getting evaporative cooling into Energy Plus (integrating into systems ex. Precooling)

- If anyone has anything new in the industry, bring it forward to the TC
- Potential to merge with 5.11 Humidifying Equipment
 - TC 5.11 is focused on research (establishing a lower humidity limit back into ASHRAE standards) and education
 - Planning a seminar for Chicago
 - TC 5.11 covers steam humidifiers and evaporative/adiabatic systems
 - Indirect technologies may be overlooked if merged with TC 5.11

IV. Handbook (Mathur)

- Published Chapter 41 in the new 2020 handbook
- We need to review Chapters 52 from the 2019 handbook
 - **Action:** G.D. to send to Steve to distribute to members/upload on basecamp
 - Need approval by 2022
- Any new technologies can be included in the chapter
 - Including publications

V. Membership (Slayzak)

- Sukru has confirmed he will be able to participate in the TC
- Chair, Vice Chair, and Secretary will roll over at the summer meeting in Austin
 - Sukru will roll on to Chair
 - William will roll on to Vice Chair
 - Richie Mittal volunteered to be secretary
- Mark Miller has volunteered to become secretary

VI. Programs (Slayzak)

- No programs proposed at the moment
- ASHRAE will be in Las Vegas in 2022 – ideal location for evaporative cooling
 - Need to get a program for that meeting
 - Possibly something on Energy Plus
 - Richie mentioned possible presentation on desiccant dehumidification and evaporative cooling
 - Action:** Richie to send a write up to Steve
 - Possible presentation on unique applications for evaporative cooling
 - ASHRAE Learning Institute (ALI) or ASHRAE

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VII. Research (Mittal)

- Subcommittee discussed the possibility of an evaporative cooling design guide in previous meetings however there hasn't been any movement on this
- If we have an RTAR that needs review send to Dennis Loveday
 - D.I.loveday@lboro.ac.uk

VIII. Standard 133,134, and 212 (Graef/Modera)

- Standards 133 (Method of Testing Direct Evaporative Air Coolers) and 143 (Method of Test for Rating Indirect Evaporative Coolers) committees have been combined into one group
 - Will still be 2 standards but they are broken up into sub-committees

- They will have another full meeting in 2 weeks
- Meeting electronically
 - Basecamp setup for each sub-committee
- Standard 188 (Legionellosis: Risk Management for Building Water Systems)
 - Leaving evaporative coolers alone and focusing on humidifiers
 - They are looking at humidifiers for all potential airborne pathogens
 - Pat is on the group that is working on the humidifiers
 - She has gone through all the technologies to show not all humidifiers are aerosol type
 - Any help Pat can get from TC 5.07 with the following:
 - For each technology, is there anything that can be put into the water that can harm a person
 - Send any information to Pat
 - Next meeting is May
 - **Action:** Steve to add discussion on basecamp
- Nothing in the handbook chapters that talk about water treatment
 - Handbook is global so recommendations on chemicals may not be applicable or acceptable in other parts of the world

IX. Website (Dwyer)

- Mark Miller has volunteered to become webmaster

X. Liason Reports

- **TAC Section 5 chair Larry Smith**
 - “Tip of the Spear”
 - Action: Steve to upload Larry’s “Tip of the Spear” document to base camp
 - TC 5.2 has gone all digital and will no longer have face to face meetings
 - TC MOP - section head is supposed to make an annual report to TAC on the viability of the TC
 - TC MOP - section head is supposed to approve Chair and Vice Chair positions
 - RPM’s can be used for remote access for meetings
 - Send any feedback/questions/issues regarding TAC changes to Larry at sh5@ashrae.org

XI. Old Business/ New Business

- Pat is in the residential building committee and they are willing to help with applications using evaporative cooling
 - i. Review RTARs or work statements
 - ii. Journal articles, programs, etc.
- Potential committees that liaisons from TC 5.07 could attend
 - 8.6 cooling towers
 - 3.6 water treatment

XII. Closing Remarks (Slayzak 2018-2020 Chair)

XIII. Next Meeting

- Austin, TX : Date TBD, 4:15 pm - 6:00 pm, Room: TBD

XIV. Adjournment

A motion to adjourn the meeting was made by Steve and properly supported by William. All members were in favor; none opposed.

(6) Approved (0) not approved (1) Not attending, (0) Abstentions

Meeting adjourned at 5:41 pm.