

ASHRAE TC 5.7
Evaporative Cooling
Main Meeting

2025 ASHRAE Annual Meeting Minutes

Monday June, 23rd, 2025
5:00-7:00 PM EST

Sheraton Phoenix Downtown, Laveen B (Level 2)

[Join Teams meeting now](#)

1. Call to order (Mark Miller)

- Welcome

- Scope:

TC 5.7 is concerned with contact type heat transfer surfaces and equipment for evaporative air-cooling. It includes application to residential, commercial, and industrial cooling requirements.

- ASHRAE Code of Ethics:

In ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and shall avoid all real or perceived conflicts of interest. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We celebrate diverse and inclusive communities, understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and the communities our Society serves. We respect and welcome all.

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

- Attendance:

Please sign in: [Sign-In](#)

- Review Leadership, Voting; Corresponding and guests. Check quorum.

Name	Role	Voting
Mark Miller	Chair	Yes
Annette Dwyer	Vice Chair	Yes
William Truong	Secretary	Yes
Richie Mittal	Research Chair	Yes
Patricia Graef	Standards Chair	Yes
Gursaran D Mathur	Handbook Chair	Yes
Steven J Slayzak	Program Chair	Yes
Mark Miller	Webmaster	Yes

Name	Role	Voting

2. Introduction (All)

- 17 people present (7 voting members)

3. Chair's Report (Mark Miller)

- Announcements and Highlights of TC Chairs Breakfast Meeting
 - Winter meeting in Las Vegas (Jan 31-Feb 4, 2026)
 - Debate, panel, seminar, forum, and workshop proposals (due on Aug 1, 2025)
 - Annual meeting in Austin (June 27-July 1, 2026)

- Society Updates
 - no update
- Membership
 - updated (two new provisional members)

4. Liaison reports

- Section Head: (Satheesh Kulankara)
 - slides can be downloaded through basecamp
 - ASHRAE has a new strategic plan through the ASHRAE website (improve global engagement)
 - chair panel (QR code to sign in)
 - new award for TC activities (nominated through TC)
 - feedback on the Orlando meeting
 - new roster will be updated (July 1)
 - ISO system (provide technical assistance)
 - new format for chair meeting
 - new technical committee (TC 9.13 Space)
 - sign up for ASHRAE newsletter (standard committee chair)
 - handbook update (two chapters) contact and follow up with handbook liaison
 - highlight "GLOBAL" in the logo

5. Approval of minutes from the Summer Meeting

- Summer Meeting Minutes: approved

6. Subcommittee reports

- Programs (Steven J Slayzak)
 - We have time until Aug 1 to put a seminar in Las Vegas
 - There are 9 tracks: Fundamentals and applications, refrigeration and refrigerants, energy storage and grid resiliency, artificial Intelligence, future-proofing the built environment, HVAC&R systems & equipment, research summit, pathways to building decarbonization, indoor environmental quality for healthy buildings
 - Water efficiency and indoor air quality can be topics we focus on (pathways to building decarbonation)
 - Downsize heat pump for the case of very huge cooling load but small heating load
 - Lots of pressure on evaporative cooling (Ban for usage of evaporative cooling due to water scarcity in southwest region)
 - Plan to propose at least one seminar and forum for Winter meeting (Steve will reach out 3-4 colleagues)
 - We need energy and water excess (water usage) related research-manage water drainage effectively
 - If stick to renewable energy, it will need a substantial amount of energy
 - Good time to submit RTAC (not much has been submitted)
 - Communications of sub-committees.
 - No sponsor from TC 5.7 for any session for this meeting

- Research (Richie Mittal)
 - Richie cannot participate
- Handbook (Gursaran D Mathur)

2 chapters for the handbook:

Chapter 53 – Evaporative cooling, last published June of 2023

-CH53 evaporative cooling (2027 handbook)-need to submit by 2026 Apr

-application handbook

-please provide feedback and comments

- G.D. asked everyone to review and give comments/feedback

Chapter 41 – HVAC system & equipment to be published this year in June. The draft document was submitted last April.

-CH41 HVAC system (2028 handbook)-need to submit by 2027 Apr

-access to the handbook document through ASHRAE website (authoring portal)

-GD attended the handbook training

-send the name to GD

- Some changes to the 2024 handbook: VAV, adiabatic dehumidification, economizers
- New figures, new tables, new references

- Standards (Patricia Graef)
 1. Standard 212: Method of Test for Determining Energy Performance and Water-Use Efficiency of Add-On Evaporative Precoolers for Unitary Air-Conditioning Equipment
 - need a balance of member roster for the standard (recruit members)
 - If interested, go to the ASHRAE website to apply for it (email to Pat and Mark)
 - not ready for vote
 - on track
- Website (Mark Miller)
 - Status (up to date)

7. Old Business

- Standard 212: Method of Test for Determining Energy Performance and Water-Use Efficiency of Add-On Evaporative Precoolers for Unitary Air-Conditioning Equipment
- ASHRAE Task Force for Building Decarbonization
- How can TC5.7 help to address the growing concerns over water usage in evaporative cooling solutions (put together in Winter meeting)
- Different modules of energy plus for evaporative cooling (Mark Pavol)-good enough for basic analysis/ generate some weird results (Steve comments)- need careful evaluation of the details-some setting and components do not make sense- prebuilt model is problematic
- Another object made by LBNL (zone hybrid) for evaporative cooling/ Army lab-was successfully used for predicting evaporative cooling (Steve comments)

8. New Business

- The calculator in question (excel spread sheet) is still available in the online version of the Handbook: HVAC Systems and Equipment, Chapter 8.
 - i. Combustion Turbine Inlet Cooling, Additional Features Tab (*TIC Comparison Table 080714.xls*)
 - ii. It will be good to have a similar tool for our chapter
- 90.4 for data center efficiency
 - i. They want to add another index of penalty for water usage
 - ii. May be good to consider national average water cost
 - iii. Current formula: kW/kW of water
 - iv. Since it takes energy to run water (but very tiny compared to the other portions), they try to put energy consumption for water usage

9. Adjourn

- Meeting adjournment