

ASHRAE TC 8.11
Unitary and Room Air Conditioners and Heat Pumps
Agenda

2024 ASHRAE Winter Conference
Hybrid

Main Meeting

Monday, January 22 4:00 PM – 6:00 PM CST
Marriott Marquis Chicago, Grand Horizon C (4)

Sub-Meeting

Sunday, January 21 3:00 PM – 6:00 PM CST
Marriott Marquis Chicago, Daniel Burnham AB (3)

1. Call to order

Worthington

Sarah Alcott (UC-Davis) is gathering information on usage of a tool on air-source heat pump

U of Maryland conference Aug 8-11?

2. Review Scope

Technical Committee 8.11 is concerned with products for use in comfort cooling and/or heating systems. The factory-engineered vapor compression systems include: (1) unitary equipment which generally requires the field engineering of the product mounting and ducting, piping and electrical connections, (2) room air conditioners such as window mounted units and ductless split systems and (3) packaged terminal equipment. Specifically excluded are unitary combustion-engine driven systems.

3. Introductions

All

- a. Determination of a quorum

McFadden

VOTING MEMBERS FOR THIS MEETING (Need 7 for a Quorum)

X	Kasey Worthington	6/30/2024
X	Michael Creamer	6/30/2025
X	Eric Berg	6/30/2024
	Omar Abdelaziz	6/30/2026
X	Davide Ziviani	6/30/2024
	Craig Bradshaw	6/30/2024

	Chris Stone	6/30/2026
X	Andrew Hjortland	6/30/2025
X	Kevin McFadden	6/30/2026
	Jon Winkler	6/30/2024
X	Darin Nutter	6/30/2026
	Jason LeRoy	6/30/2026

4. Agenda additions

All

5. Chair's Report

Worthington

- a. May 2023: The Board of Directors approves the Global Technical Interaction Committee (GTIC)
- i. GTIC shall be responsible for harnessing the technical resources of ASHRAE to influence international standards and maximize the global impacts of ASHRAE standards and other technical work products on the practice of HVAC&R and the built environment.
- ii. Additionally, a Technical Committees Interactions Subcommittee (TCIS) is being formed responsible for developing and maintaining a bi-directional flow of information between society-level technical committees and the GTIC to make TCs aware of the global implications of their activities. The subcommittee shall also identify experts who can assist with activities identified as important by the GTIC.

- b. BOD is Considering adding to it structure and deploying the Center of Excellence for Building Decarbonization (CEBD), which will report to the ASHRAE Board of Directors Executive Committee
 - i. Provide strategic direction for ASHRAE building decarbonization activities and work with the Planning Committee to incorporate appropriate goals into the Society strategic plan.
- c. The society is looking to understand the participation relationship between members that attend/are involved at the National level compared to the local level.
 - i. Show of hands who participates at the local level and/or attends local events regularly. 4 people out of room of around 60-70 people
- d. Society's Next Strategic Plan is in development, and they are seeking member input. Use the following QR code to provide feedback



- i. They will pull responses on January 31, 2024, and again on May 31, 2024.

6. Approval of minutes from Atlanta Winter Meeting

Worthington

- a. Approved minutes from Tampa meeting 7-0-0

7. Membership/Roster

Worthington

Name	Role	Voting
Kasey Worthington	Chair	Yes
Scott Creamer	Vice Chair	Yes
Kevin McFadden	Secretary	Yes
Chris Stone	Standards Chair	Yes
Chad Bowers	Handbook Chair	
Davide Ziviani	Program Chair	Yes
Eric Berg	Research Chair	Yes
Darin Nutter	Web-master	Yes

Name	Role	Voting
Omar Abdelaziz		Yes
Craig Bradshaw		Yes
Andrew Hjortland		Yes
Jon Winkler		Yes
Jason LeRoy		Yes

- a. Looking for a new Handbook Chair.
 - i. Haotian Liu has volunteered to be the handbook chair.
- b. After Indianapolis on 6/30/24, Scott Creamer will become Chair, and Kevin McFadden to become Vice Chair.
 - i. Looking for a Secretary to serve from 7/1/24 to 6/30/26
- c. 5 Voting Members will be rolling off after the summer Indianapolis Meeting on 6/30/24.
 - i. Kasey Worthington, Davide Ziviani, Eric Berg, Craig Bradshaw, and Jon Winkler
 - ii. I recommend that New Handbook Chair Haotian Liu
 - iii. I recommend that New Secretary **XXX** Be Voting Member.
 - iv. Chad Kirkwood would like to roll on a voting member (no additional roll).
Christian Bach also would like to become a voting member.
 - v. Parveen Dhillon volunteered as secretary and voting member.

8. Subcommittee reports

- a. Standards Chris Stone
 - i. [Chad Kirkwood]: SPC 37 reviewed 91 comments to PPR1 and provided feedback, including to commenters. Target is to put standard back up for PPR2 following Chicago meeting. After that, anticipating publication. Committee is looking for an expert in significant figures. Next goal is to convert to SSPC 37, and will be looking for new leadership team. Continuing effort needed, for CVP, research, etc. Contact Chris Stone and Chad Kirkwood for additional detail.
 - ii. [Scott Creamer]: 41 Series – 41.6, 41.9, and 41.7 are up for reaffirmation and new publication. Looking for volunteers. As of today, 41.2 has been published since last meeting. 41.3 has been published since last meeting. Both up for review 2025.
 - iii. [Scott Creamer]: SPC 16 has a lot of activity tied to AHRI 310/380 for PTAC. Committee will yield PT TP until April, when AHRI has draft. Will integrate changes into 16 at that time.. Reaffirmation due in 2026; PPR target mid-2025.
- b. Programs Davide Ziviani
 - i. Two programs submitted for seminar here in Chicago. (#44 tomorrow – heat pump controlled environment vs field testing). UNGTP seminar was not put together in time, but may be replaced with more current content. Track 8 for Codes and Regulations – Tentative “Regulatory Crazy Train for Equipment Testing” chaired by Chad Kirkwood, will have three speakers. Chad will speak on residential (210/240 and 1600), Kasey to provide someone (Kevin Teakell) for commercial (1340), perhaps a third from DOE or consultants on the regulatory process and authority (EPCA, process rule, etc).
 - 1. Troy Watson (DOE) noted that on the docket is a presentation by DOE on the thinking behind IVEC/IVHE. He was interested in having someone present. Davide suggested possibly someone for Guidehouse.
 - ii. Motion to do this program with Chad as chair (Eric, Scott) → Passes 7-0-0
- c. Handbook Chad Bowers
 - i. Need to vote to agree we are ok with not doing anything on the Handbook Chapters.
 - ii. Responsible for 3 chapters: 2 are in this year’s handbook (unitary AC/HP, RAC & PTHP). Other is in applications, published last year.

- iii. Motion to accept everything as is (Andrew, Scott) → Passes 7-0-0
- iv. Chad is also seeking a replacement for role as handbook chair.

d. Research

Eric Berg

- i. Letter Ballot 12/6/23 **MOTION:** TC 8.11 to co-sponsor with 8.8 RTAR Titled: Reversing valve loss and leakage models for cold climate heat pumps.
 - 1. Results: **PASSED 11-0-0-1**
 - **1 No Response**
- ii. Letter Ballot 12/6/23 **MOTION:** approve the completion/closeout of ASHRAE research project 1721-RP?
 - 1. Access to the final report can be found at the following link:
<https://app.box.com/s/bkvda1k5awhbd1md9opvifqtr8ekqu11>
 - 2. Results: **PASSED 10-0-1-1**
 - **1 Abstain due to Conflict of Interest (Professor at the same University as RP)**
 - **1 No Response**
- iii. 1785 Need no cost ext until 6/30/24 (oil retention and return) needs disposition form (Ray Wheeler, Trane)
- iv. 1733 Like to vote to accept the Final report (psychrometric measurement apparatus) (Report is complete and being reviewed by PMS) – will do letter ballot to have it approved by the full committee. Will also need disposition form (Chad Kirkwood, Carrier)
- v. 1824 Need no cost ext until 6/30/24 (barometric pressure adjustment) also needs 6-month extension.
 - 1. Motion (Jason, Andrew) to extend → Passes 7-0-0

RP???? On coil modeling from yesterday SC (Project targeting completion in 2026, needs extension to next ASHRAE meeting Motion (Jason, Andrew) to give 6-month no cost extension → Passes 7-0-0

RTAR approved with TC 8.8. Christian Bach originally thought cost was too high (about 600k) but learned that budget is acceptable if approved by board of directors. Project is for correlation of capillary tubes using low-GWP refrigerants. Jason LaRoy, on behalf of the research committee, questioned the value of this research for 8.11. Khaled Saleh noted this could be useful, but only if it can be completed in a couple years, not four. Christian estimated that it should be possible to complete in three years. Agreement is that Christian can continue to work on work statement.

No additional updates were available on potential DOAS RTARs subsequent to the last TC 8.11

RTAR on anti-frost coating was split into two, one half is of interest to this committee.

Potential RTAR on room stratification in psychrometric chamber, triggered by SPC 37. Scott has put in several drafts over the years but without getting it through. Agreement is to restart at the RTAR phase; Scott will shepherd this.

[Chad Kirkwood]: Ideas originally from the UNGTP. Vision is to disband the committee, but final act is to identify which potential research (RTARs) would still be considered critical to industry as it now stands. Example is “instrumentation for transient measurement.”

SPC 16 will hold off on RTAR for cyclic testing. For dehumidification performance, similar story. Will revisit at next meeting to see if investigative testing makes sense after 310/380 is published.

e. Web site

Darin Nutter

- i. Darin finally was able to access the website and it is now updated.

9. Liaison reports (as they arrive)

Liaisons

- | | |
|---|---------------|
| a. MTG – Low GWP Refrigerants | Siva G |
| b. Refrigeration Technology | Hwang |
| c. Very hot ambient and warm/very humid ambient efficiency STDs | Chao Ding |
| d. RAC | Carl Huber |
| e. TAC Section 8 | Charlie Henck |
| f. TFBD | Chad Bowers |

Peter Luttik (TC 8.10) suggested an RTAR on potential scenarios where the DOAS does not meet the entire dehumidification/ventilation load and can instead focus some on sensible load.

Peter is also seeking utilities to engage in ASHRAE's DTG (Decarbonization Task Group). Soliciting participation.

10. Old Business

11. New Business

12. Adjourn

- a. Adjourned 5:09pm

Troy Watson (DOE) has requested to be added to the TC 8.11 meeting list. (troy.watson@ee.doe.gov)

Man-Hoe Kim (Kyungpook National University, South Korea) to be added to email list (manhoe.kim@knu.ac.kr).