

**ASHRAE TC 6.3**  
**Residential and Light Commercial Forced Air Heating and Cooling Systems**  
**TC 6.3 Website: [Link](#)**  
**Committee Meeting Agenda**

**2025 ASHRAE Winter Conference**  
**Tuesday, February 11, 1:00 – 3:00 PM EST**  
**Hilton Orlando, Key Largo B (Lower Level)**  
**Hybrid Meeting**  
**Meeting Link:**  
[MS Teams Meeting](#)

**Meeting number:**  
256 996 669 32  
**Password:**  
RKfmom

**1. Call to order** **HJORTLAND**

[1:00 pm Hjortland](#)

**2. Review Scope**

TC 6.3 is concerned with those central forced air systems used for residential and light commercial building comfort heating and cooling. Responsibility covers the design and performance of the entire system, including equipment, controls, ducts and the interactions of the system with building heating and cooling loads.

**3. ASHRAE Code of Ethics Commitment** **HJORTLAND**

“In this and all other 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 we shall avoid all real or perceived conflicts of interests.”

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

**4. Introductions** **All**

- a. Determination of a quorum **HAYDOCK**
- b. **ONLINE PARTICIPANTS: Please indicate your presence in the chat.**

*VOTING MEMBERS FOR THIS MEETING (Need (5) for a Quorum)*

NAME	End Date	NAME	End Date
Nicolas AOUAD	2025-06-30	Payam DELGOSHAEI	2027-06-30
Larry BRAND	2025-06-30	Wayne KRAFT	2027-06-30
Craig GRIDER	2025-06-30	Patrick RILEY	2027-06-30
Andrew HJORTLAND	2025-06-30		
Jeffery MUNK	2026-06-30		
Scott CREAMER	2027-06-30		

- Quorum established – 7 present (green) / 2 absent (black)
- Motion to approve the Indianapolis Meeting Minutes: Scott Creamer first and Craig Grinder second; Motion Carries 6-0-1-2 (Chair not voting);
  - **Action Item:** Andrew will send updated meeting minutes to George to update on the website.
- Randy Palm; Steve Kowalski; George Yaeger; Noe Contreras; Tyler Lancaster volunteered to become voting member (5)

BALANCE AS OF 2025-07-01

Category	Number of VMs	% of VMs
Users	2	
Contractors		
Product Manufacturers	4	
Academics		
Consulting Engineers		
Government Agencies	1	
Independent Sales Representatives		
Trade Organizations		
Research Organizations	2	

**5. Agenda additions** **All**

None

**6. Chair's Report** **HJORTLAND**

- a. Announcements and Highlights from TC Chairs Breakfast Meeting

**7. Liaison reports (as they arrive)**

- a. Section 6 **REINDL**

- TC Chair Breakfast: 2025 Strategic preview is provided by ASHRAE. Discuss how TC could align activities that for better alignment in research and programs.
- CBED report uploaded by the AHSRAE.
- Program: Submit again programs and make sure to align up with the tracks for Phoenix
- CEC is planning on eliminating the publication of technical paper in future. Technical paper numbers are getting low and conference paper numbers are increasing. Recommended to plan for shorter paper as conference paper and longer paper as journal paper in STBE.
- Roster update deadline is March 3<sup>rd</sup>
- Research Liaison: Research went out for bid last fall after updates and no one bid (second time). Need to go back and update the work statement.
  - **Action Item:** Check whether the bidder received the solicitation; seems like changed bidder last time and they didn't receive it. Research liaison will check whether TC/ authors and bidder get notified when it goes out for the bid.

- b. MTG – Low GWP Refrigerants **CRAWFORD**

- Seems to be not that active and it will keep on going but might not have significant work in near future.
- RP1806 was completed last summer but haven't heard anything yet.

- c. Center of Excellence for Building Decarbonization **MERCER**

**8. Approval of minutes from 2024 Hybrid Summer (Indianapolis) Meeting** **HJORTLAND**

**9. Membership/Roster** **HAYDOCK**

Name	Role	Voting
Andrew HJORTLAND	Chair	Yes
Scott CREAMER	Vice Chair / Program Chair	Yes
Paul HAYDOCK	Secretary	No
Nicolas AOUAD	Research Chair	Yes
Kevin MERCER	Standards Chair	No
Randy PALM	Handbook Chair	No

Name	Role	Voting
Lawrence BRAND	Member	Yes
Craig GRIDER	Member	Yes
Jeffery MUNK	Member	Yes
Payam DELGOSHAEI	Member	Yes
Wayne KRAFT	Member	Yes
Patrick RILEY	Member	Yes

George YAEGER	Webmaster	No			
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**Changes After 7/1/2025:**

- a. **Four Voting Members Rolling-off:**  
 Nicolas Aouad  
 Larry Brand  
 Craig Grider  
 Andrew Hjortland
- b. **Need 4-5 Volunteer to Roll-on as Voting Members**
- c. **Changes to Subcommittee Chairs?**

- Andrew volunteered to become Research Chair following the next meeting.
- Need program chair for the next meeting as Scott will be becoming chair.

**10. Subcommittee reports**

a. Programs

**CREAMER**

- Co-sponsored Low GWP MTG session in Orlando – covered updated on standard 15 and 2-40(?); highest attended session
- 7 tracks for Phoenix conference.
- A lot of discussion on CO2 systems this time as there is discussion on updating 15-2. Could be under HVAC
- Seminar proposal for Phoenix: Refrigerant leak detection system: Craig Grider volunteered to Chair and help in finding speakers. Low GWP MTG could be co-sponsor. Will also make SSPC 15-2 aware. Seminar with possible 3-4 speakers; sensor manufacturers.

**Scott motion to sponsor the seminar by TC 6.3 with Craig to be chair: Craig second motion carries: 7-0-0-2**

- Paul Haydock mentioned: CPSC CO detection with circulation-based system for gas furnace. How distribution system affects the level? CPSC would like to have CO sensor in the combustion chamber. Possibly push out this session for Vegas with Paul as chair. CPSC could talk about why it is necessary to put CO sensor in the combustion chamber.

**Craig Motion to sponsor the seminar on distribution of flu through distribution system for Vegas: Larry second. 7-0-0-2 motion carries**

b. Research

**AOUAD**

- WS-1910 – Evaluation of Standard 103 Transient Components and Thermostat Cycle Times on the Resulting AFUE
- WS-1909 - In-Tube Condensing Flue Gas Heat Transfer and Pressure Drop with Enhancements for Residential Furnaces (Co-sponsor with TC 1.3)

Had 4 bids and a bidder selected; moving to next steps now.

- ~~Industry Sponsored (Daikin) Research Proposal:~~ **HUNT**

~~Field Evaluation of Residential Air-Conditioner and heat Pump Operation at Design Cooling Conditions~~

Two work statement ongoing.

- Paul and Larry rewrote the work statement; went for bid at least once.  
 It is difficult to get natural gas furnace work done in universities; better to have analytical work done by graduate students.
- New idea (Paul): Leveraging the growth of H2 blending in fuel and how that affect AFUE calculation. Adding more H2 produce more water. Looking into how blending H2 level could be accounting to update the AFUE calculation. Larry and Paul will work on RTAR. Boiler and Fuel subcommittee could be co-sponsor. Andy will follow-up with chair once abstract idea is defined.

- Daikin approached for a project but no longer interested.
- **Action Item:** Andrew will follow-up with WS 1909 (?) authors.

c. Handbook

**PALM**

- Chapter 10 – Small Forced-Air Heating and Cooling Systems
- Chapter 33 – Furnaces

HVAC system and equipment handbook both chapters.

Chapter 10 update included in 2024 online version. Chapter 33 update voted on in last meeting; check list / vote count / updated were sent to editor and liaison. Expected to see those updated by April.

Next update is in 2028. Chapter 33 could have significant changes in the next version. Starting from next meeting, will begin update for next version.

d. Standards

**Wayne**

- Standard 103: Methods of Testing for Annual Fuel Utilization Efficiency of Residential Central Furnaces and Boilers, Methods of Testing for Annual Fuel Utilization Efficiency of Residential Central Furnaces and Boilers

Need to check reference and mandatory language. Right now, working on revision; 2017 public comments were done; will need to do in 2027 next. Significant change: need to update a table on fuel properties to the right reference. Need to form a project committee to make revision to the standard. Need to have paperwork by April before standards committee meeting to have a project committee.

Follow up to do an email ballot as it is covered by two TCs (6.1?). Volunteer for committee: Wayne, Paul, Scott, George, Robert Glass, Larry, Craig.... (Wayne got all the names)

- Standard 193: Method of Test for Determining the Airtightness of HVAC Equipment (TC 4.3 Co-cognizant)

Restarting the committee with Scott as chair to perform revision; pulling in older public comments. Standards committee reaffirmed in 2024 due to timing issues. Scott will have monthly meeting and most of work will be done by Phoenix.

e. Web site

**YAEGER**

Website is up to date; provide George if need to add any more information.

**11. Old Business**

**12. New Business**

Noe: General discussion on dual fuel system for residential system. Performance, system efficiency, ...

Don't need a separate subcommittee for discussion. Follow-up with any ideas on programs, research, standards for discussion.

**13. Adjourn**

**Motion to adjourn Larry 2:30 pm**