

**2015 ASHRAE Annual MEETING
Atlanta, GA**

TC8.11 Unitary and Room Air Conditioners and Heat Pumps

Monday, June 29, 2015: 4:15 – 6:30 PM

Location: Pavilion 8 (2)

TC8.11 Subcommittee Meeting – Sunday, June 28, 3:00-5:00 pm – Pavilion 10 (2)

Sponsored Programs

None in Atlanta

Full Committee Agenda

1. Call to order Berg
 - a. Meeting was called to order at 4:23 pm

2. Introductions All
 - a. Introductions were made

3. Determination of a quorum Berg
 - a. 7 members are needed for quorum, 10 were initially present (including one non-quorum member, or MNQ) so quorum was met.
 - i. Absent: Robert Brown, Yunho Hwang, and Roy Newberg
 - ii. Man Hoe Kim (non-quorum) attended a portion of the meeting, and did not vote. His votes are shown as abstaining when he was present.
 - b. Membership
 - i. Five voting members are rolling off and two are being added after the Atlanta meeting. The committee will then be comprised of 12 voting members. The minimum is 6 so we have sufficient but will take more members if there is a request.
 - ii. You can join any TC from the website, or new members can send their information to the chair. First you become a provisional member, then later will become a corresponding member.

4. **Announcements and Highlights** Berg

From TC Chairs Breakfast Meeting

 - a. The chair reviewed items from the TC chairs breakfast.
 - b. The handout from the TC chairs breakfast is attached.

5. **Agenda additions** All
 - a. None

6. **Liaison reports (as they arrive)** Liaisons

Info from Section 8 Steve Duda

 - a. Discussion of updates to website – new templates coming soon to simplify the website maintenance and editing effort.
 - b. Best TC award (July 1 to June 30) - we received the first award in January.
 - c. Encouragement for all TCs to proactively welcome visitors to our meeting
 - d. Thank you letters to employers – ASHRAE president will send a letter to designated person at the company you work for. See the recent email from ASHRAE for more info.
 - e. Steve is ramping down as Section 8 head. Dustin Meredith will be new Section 8 head.
 - f. Coming soon: There will new TC email aliases for all positions in a TC (Chair, Vice Chair, Secretary, Research, Program, Handbook, Standards, Webmaster). These should be populated on the TC's website once they are available.
 - g. RAC for next year will emphasize Residential Sector so highlighting 'Residential' can help research or programs get approved.

7. **Approval of minutes from Chicago** Christensen
 - a. Chicago minutes had no discussion, and were approved 9-0-0-cnv

8. Membership/Roster

Berg

- a. 5 members are dropping off; 2 joining as new voting members in Orlando

9. Subcommittee reports

a. Programs

Kevin Mercer

- i. Overview of tracks for Orlando (winter, Jan 2016) and St. Louis (summer, June 2016) were provided. It is easiest if proposed programs can be tied to one of the major conference tracks.
- ii. Orlando plan:
 1. Van Baxter is organizing a Conference Paper Session, including papers on NIST ZERTF heat pump, 2 others on cold-climate heat pump performance enhancement
 2. Orlando Seminar proposals are due 8/10:
 - Potential update on RP-1608 – to be discussed after the meeting
 - Seminar suggestion – Great Debate: Equipment ratings vs. Real Life
- iii. St. Louis plan:
 1. St. Louis dates: Conference papers: Abstracts Sep 14, Conference papers Jan 14. Seminars due Feb 8 (soon after Winter meeting)
 2. Discussed potential papers/seminars. Opportunities for smart homes and connected devices/components. Great debate idea – put together an issue that has very opposing points of view (Rating conditions/performance vs. real-world conditions/performance was considered.)
 3. Potential seminar on RP-1608 load based testing results; Lorenzo indicated this work is not yet ready for a paper.
 4. Vance and Dane offered papers on net-zero home performance. Can maybe co-sponsor this. However this may not focus solely on the TC's core scope.
 5. Jon Winkler: considering a paper on loads in low-load vs. standard homes
 6. Chair informed that Piotr Domanski requested we co-sponsor an Orlando seminar on "Highlights from the 24th IIR International Congress of Refrigeration". Piotr would give an overview of the Congress and why its important; Mark McClindon would talk about future Low GWP refrigerants; Predrag Hrnjak would discuss new developments in microchannel heat exchangers; and Per Lundqvist would discuss heat pumps insmart energy systems. The Congress meets in August; program to be finalized soon after. – Approved: 9-0-1-cnv

b. Research

Don Schuster

- i. Update from Research breakfast was presented
- ii. RP-1608 (load-based testing of light commercial equipment) is on schedule. Reid Hart provided an update. More data was collected than expected. Found poor repeatability under some conditions so it has been more challenging than expected. Close to completing the tests but some heating tests have been added.
- iii. Work Statements:
 1. 1721 oil return; work statement circulated to voting members and passed by letter ballot. TCs 3.4 and 10.3 interested in cosponsoring – awaiting confirmation of their upcoming votes
 2. 1733 air mixers for psychrometric testing; work statement submitted to the committee and passed by letter ballot and will be submitted to RAC. Need volunteers to serve on PMS
 3. 1743 inlet duct design effects on ASHRAE 37/116; work statement in process. This will be circulated for review and vote by letter ballot
- iv. RTARs:
 1. Improved refrigerant charge modeling in coils for residential unitary split systems – draft comments are back to Ray Rite. TC 8.4 interested in co-sponsoring it, maybe TC 6.3 also? Want to get to RAC by 8/15/15.
- v. TRPs (cosponsoring):

1. TRP-1645 - *Development of New Accelerated Corrosion Test(s) for All-Aluminum Microchannel and Tube and Fin Heat Exchangers* – Rusty Tharpe is liaison and gave brief update. The test methodology has been finalized and the PI is in the process of acquiring test samples.
 2. TRP-1705 – accelerated air-side fouling on outdoor heat exchangers – approved through RAC. Hugh Henderson reported that proposals are under review.
- vi. Ideas in process:
1. Cyclic testing correlations – AHRI has been requested to support with some data. Vance Payne and Dutch Uselton are taking point on this.
 2. Output of Standard 37 revisions:
 - Barometric pressure & dew point specification vs. dry/wet bulb. Chad & Jon Winkler to push this forward. (RTAR underway in SPC 37)
 - Room stratification impact on psych testing – medium priority
 - Code tester nozzle evaluations – low priority
 - Temperature measurement device evaluations – low priority
 3. Effects on moist air properties of contaminants (vapor, dust) in airflow (TC 1.1 is considering this)
 4. TC 6.8 requested we join a multidisciplinary task group to revise and strengthen RTAR-1752: "Guidelines for Avoided Electric Generation/Source Energy Consumption due to Waste Heat Recovery and Heat Pump Technologies". Discussion led to a vote to participate in this MTG. Final vote was 9-0-0-cnv. Van Baxter will tentatively be the TC 8.11 representative on the MTG.
- vii. Research chair needed – Don is looking for a replacement
- viii. AHRI created a flammable research subcommittee; are there any ideas we should pitch to them? Individuals are invited to comment directly to AHRI, contact is Xudong Wang.

c. Handbook

Ray Rite

- i. TC has two chapters in 2016 HVAC Systems & Equipment:
 1. Chapter 50, Room Air Conditioners and Packaged Heat Pumps was revised; approved in spring; submitted and done!
 2. Chapter 49, Unitary Systems, was revised and circulated recently. The committee voted to approve this chapter revision: 9-0-0-cnv

d. Standards

Chris Stone

- i. ASHRAE 16/58 is still in process – review draft will be done after this week's SPC meeting (tomorrow, 8-noon)
- ii. ASHRAE 37/116 is now one SPC (or will be very soon)
- iii. ASHRAE 137, 206 – no activity
- iv. ASHRAE 213P – calculation of air properties is underway; hoping to wrap up review draft within a year.
- v. SSPC 41 – a number of updates in process.
 1. 41.12 is a new standard on uncertainty

e. Website

Darin Nutter

- i. Website is up to date

10. Old Business

- a. ASHRAE 15.2 – *Safety Standard for Air-Conditioning and Heat Pump Systems in Residential Applications* – is new since last meeting. Rusty Tharpe provided an update. This indicates a split of Std. 15 into non-residential (15.1) and residential (15.2) documents to better address the needs of each market.

11. New Business

- a. None

12. Adjourn

- a. Meeting was adjourned at 6:07pm

VOTING MEMBERS (Need 7 for a Quorum)

Baxter, Van (ORNL)*	Hwang, Yunho (U. of Maryland)*	Nutter, Darin (U. of Arkansas)*
Berg, Eric (Lennox)	Kim, Man Hoe MNQ (Kyungpook Nat'l U.)	Rite, Raymond (Trane)
Brown, Robert (Water Furnance)*	Mercer, Kevin (Carrier)	Stone, Chris (AHRI)
Hart, Reid MNQ*	Messmer, Craig (Unico)	Tharp, Rusty (Goodman/Daikin)
Horak, Byron (Intertek)	Newberg, Roy (Johnson Controls)	

* indicates member rolling off after Atlanta meeting