

**2015 ASHRAE WINTER MEETING
Chicago, IL**

TC8.11 Unitary and Room Air Conditioners and Heat Pumps

**Monday, January 26, 2015: 4:15 – 6:30 PM
Location: Chicago Room, Palmer House Hilton**

Attendance:

VOTING MEMBERS (Need 6 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

TC8.11 Sponsored Programs in Chicago:

1. Systems & Equipment Track: SEMINAR 13 (INTERMEDIATE) – **Variable System Field Results and Why Load Based Testing Is Needed for Residential Equipment Applications** (Sunday, January 25, 11:00 AM-12:30 PM)
2. Energy Efficiency Track: AHR EXPO SESSION 1 (BASIC) – **New 2015 Regional Standards and the Effects on Different Areas of the HVAC Industry** (Monday, January 26, 3:00 PM-4:30 PM)
3. Systems and Equipment Track: SEMINAR 48 (ADVANCED) – **International Codes and Standards Issues Impacting use of A2L Refrigerants in Unitary Heat Pump and Air-Conditioning Equipment** (Tuesday, January 27, 11:00 AM-12:30 PM)

Full Committee Agenda

1. Call to order Berg
 - a. Meeting was called to order at 4:15 pm.
2. Introductions All
 - a. Introductions were made.
3. Determination of a quorum Berg
 - a. 6 members are needed for quorum, 9 were initially present so quorum was met.
 - i. Van & Darin arriving late, making 11 present
 - ii. Man Hoe Kim did not vote, but did sign in; the vote tallies were modified retroactively to reflect he had abstained from the votes.
 - iii. Absent: Robert Brown and Kevin Mercer
 - b. Request for new member nominations was made; new members will roll on after the Atlanta meeting
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. There were no agenda additions

- 6. Liaison reports (as they arrive) Liaisons
 - a. TAC Section 8 - Steve Duda
 - i. Mr. Duda congratulated TC 8.11 for winning the outstanding TC award. Points are awarded for getting minutes out on time, send the agenda out on time, etc.
 - ii. Award Certificate was made to former chair Vance Payne.
 - iii. Steve is available to support us with roster updates.

- 7. Approval of minutes from Seattle Berg
 - a. Correction to Seattle Minutes: in 3b there were 9 voting members present; 8-0-0-cnv
 - b. Minutes are approved; 7-0-1-cnv

- 8. Membership/Roster Berg
 - a. The chair reviewed the roster for the next term.
 - b. Eric Berg is serving as chair. Craig Messmer is serving as vice chair. Dane Christensen is serving as secretary.
 - c. Members are rolling off after Atlanta summer meeting; call for new members
 - d. The chair reminded anyone who is a provisional corresponding member to contact him if they want to become a full corresponding member, otherwise they will roll off after a specified period of time.

- 9. Subcommittee reports
 - a. Research Don Schuster
 - i. Don reviewed highlights from the research chair breakfast. Details are in the research subcommittee minutes, which are attached.
 - 1. Nominate deserving graduate students for
 - ii. Active Research
 - 1. *Complete*
 - **None**
 - 2. *In-Progress*
 - **1608-TRP – Development of a Load-Based Method of Test for Light Commercial Unitary HVAC**
 - PMS: Reid Hart (chair), Jay Baggett, Michael Deru, Chris Stone, Semant Jain
 - **Meetings**
 - i. PMS held on 1/19/14
 - ii. April 10, 2014.
 - 1. Review draft test plan and testing
 - iii. April 29, 2014
 - 1. Review revised test plan and testing
 - iv. June 29, 2014
 - 1. Progress Report
 - iii. Work Statements
 - 1. *Accepted:*
 WS-1642 “Improved Cmpr. Perf. Modeling Methodology for use in Sys. Sim. Programs” (Ray Rite)
 Status: Due to failure of 8.1 of co-sponsor, this is not being pursued.
 - 1. *In-Progress: None*
 - iv. RTARs
 - 2. *Accepted*
 RTAR 1733 - “**Develop Design Criteria for Psychrometric Air Sampler and Mixer Apparatus for Use in ASHRAE Test Standards**” (Kirkwood)

Comment [DC1]: Ask Reid for comments/input for minutes

Status: Accepted, Chad to start work statement (Section 8 RAC liaison)

RTAR 1743 – “Effect of Inlet Duct and Damper Design on ASHRAE 37/116 Fan Performance and Static Pressure Measurements” (Berg)
Status: Accepted, Eric to start work statement (Section 8 RAC liaison)

3. *In-Progress*

RTAR 1721 “Oil Return and Retention in Unitary Split System Gas Lines” (Rite)

Status: Approved by RAC, Work Statement in works

Note to connect with TC 3.4 – similar RTAR in development there.

v. Co-Sponsoring

TC 8.4 Research Chair: Chad Bowers

chad.bowers@creativethermalsolutions.com

Research SC meeting: Mon 6:30 – 9pm

i. *TRP 1645 – “A Research Study to Determine and Compare New Accelerated Corrosion Tests for Microchannel and Standard Tube & Fin Heat Exchangers” (David Ellebrock)*

Status: Rusty Tharp is the TC 8.11 liaison; Univ of North Texas is contracted & starting work; developing test method concepts

ii. *TRP 1705 – “Investigation of Air-side Fouling on Outdoor Condensing Heat Exchangers”*

Status: Approved – Bids are in and under review

iv. Ideas

1. Dewpoint / barometric pressure evaluation of impacts
2. Code tester nozzle evaluations
3. Room stratification on psychrometric testing
4. Correlate cyclic degradation coefficient with AHRI data, with goal of making new default value and/or eliminating that testing.
5. Reviewed ideas from SPC37/116
6. Chair informed committee that the ideas from SPC37/116 would be prioritized in their meeting on Wednesday. Complete RTAR's would be sent to TC 8.11 for approval by letter ballot.
7. No new ideas were suggested.

v. Research subcommittee minutes are attached.

b. Handbook

Ray Rite

- i. Ray reviewed the status of all chapters. Chapter 1 is complete and submitted
 1. Van Baxter will proof the galleys, should be receiving soon & will circulate comments to the committee as appropriate
- ii. Have reviewed chapters 49 and 50. Drop-dead date on 49 is July 4th, 50 is July 11th of this year.
- iii. Chapter 50 – Room Air Conditioners & PTACs
 1. Webinar meeting – committee discussed revisions.
 2. Copy circulated to voting members for review. No comments back.
 3. Summary of changes: on PTACs, cleaned it up a bit. On RACs, regulatory changes resulted in some significant changes. Made things more concise.
 4. Motion to approve recommended changes; seconded. 10-0-1-cnv
- iv. Chapter 49
 1. Going to add a few things.

- 2. We don't discuss ECMs at all; need to discuss them and reference other chapter(s) as appropriate. (Action for Ray)
- 3. Does reference standards such as 210/240 & DOE test standards. This chapter doesn't reference the new regional standards; should probably say something about that. (Action for Ray)
- 4. Voting will occur by mail ballot
- 5. Conflicting definition of PTAC in this chapter was resolved; AHRI coordination continues
- v. Handbook subcommittee minutes are attached.

Comment [DC2]: Get from Ray

c. Standards

Chris Stone

- i. Committee has 6 standards.
- ii. 16/58 is meeting on Tuesday, 8-noon. Plan is to have draft ready for public review in June.
- iii. 37/116 is meeting on Wednesday, 8-noon. Approved to combine these standards going forward.
 - 1. Vote to reaffirm 37: 10-0-1-cnv
- iv. 137 and 206 have no activity. Both were recently acted on (2013)
- v. Standards report is attached.

d. Web site

Darin Nutter

- i. Website is up to date.
- ii. FAQ section will refer to ASHRAE website section as well

e. Programs

Chad presented notes; Kevin Mercer absent

Comment [DC3]: Get report from Kevin

- i. 3 programs presented at Chicago meeting:
 - 1. Systems & Equipment Track: SEMINAR 13 (INTERMEDIATE) – Variable System Field Results and Why Load Based Testing Is Needed for Residential Equipment Applications (Sunday, January 25, 11:00 AM-12:30 PM)
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- ii. Atlanta Summer meeting ideas: 2/9 Seminar ideas – time is very short; limited
- iii. Orlando: conf paper abstracts 3/23, tech paper April 20, seminars August 10. Ideas included:
 - 1. high-ambient performance (CO₂ compressor impacts?)
 - 2. impact of installation faults on steady & Seasonal performance
 - 3. dehumidification DOAS units – latent removal at non-standard conditions
 - 4. IEA Annex 41 – cold-climate heat pumps
 - 5. Connected components/systems – challenges, capabilities & opportunities
 - Possibly get thermostat mfrs, 3rd parties, utilities, etc.
 - 6. Modern Residential Systems (Track 8)
 - 7. Potential to partner with TC 7.5 on connected equipment/FDD idea

10. Old Business

Non-A1 Refrigerants Potential Application Safety Standard for Residential Systems – Rusty Tharp

- a. Rusty Tharp presented an application for a new standard titled “Safety Standard for Residential Air-conditioning/Refrigeration Systems”. Rusty gave some background for the

reason behind creating the new standard. SSPC 15 voted to concur in agreement with new standard recommendation. Call for new members is anticipated following ASHRAE's process.

- b. 15.2 is expected to have separate subcommittee to develop the standard; SSPC 15 will have a final vote
- c. Dutch Usselton reported on president's breakfast. Commented on outstanding service of two former ASHRAE presidents who passed away this year.

11. New Business

- a. Eric Berg: One question was provided & can be answered on the FAQ. "Where can I find a good air conditioning or heating unit?" Response drafted by Rusty Tharpe & Van Baxter was circulated. Motion to approve the new answer passed: 10-0-1-cnv.
- b. Omar Abdelaziz – new MTG on low-GWP refrigerants. Mark Spatz was liaison to this group. Meeting occurs on Wednesday, 10am. One volunteer was selected; need to get contact info.
- c. Annex 40 report was discussed. Some ASHRAE funding may be available to support travel. Report is attached below.

12. Adjourn

- a. The meeting was adjourned at 5:28

VOTING MEMBERS (Need 6 for a Quorum)

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