

**2012 ASHRAE WINTER MEETING  
Chicago, IL**

**TC8.11 Unitary and Room Air Conditioners and Heat Pumps  
Monday, January 23, 2012 4:15 – 6:30 PM  
Location: Wabash (3)**

**Theme/Logo**



**Sponsored Program**

*Seminar 49 (Advanced) Impact of Extreme Ambients on Performance of Unitary Air Conditioners and Heat Pumps  
Room: Empire*

**Full Committee Agenda**

1. Call to order Horak
  - a. The meeting was called to order at 4:19 p.m.
2. Introductions All
  - a. Introductions were made.
3. Determination of a quorum Horak
  - a. 12 voting members present, quorum was met.
4. Announcements and Highlights Horak  
From TC Chairs Breakfast Meeting

**The Rebranding of ASHRAE**

A new logo and tagline 'Shaping Tomorrow's Built Environment Today' was unveiled at the plenary session of this meeting on Saturday as the first step in a rebranding plan for ASHRAE. For more information on why ASHRAE has decided it is time to rebrand our identity and answers to other questions on this topic, please refer to the attached document entitled *ASHRAE Key Messages and Frequently Asked Question*.

TCs will be asked to support this effort by updating their TC website to reflect the new logo and tagline before March 1<sup>st</sup> this year. ASHRAE staff will provide each TC webmaster with the necessary files and assistance needed to update the TC's website for this change. Please notify your webmaster that he or she will be contacted by ASHRAE staff in the month of February with more information on how to implement this change to the TC's website.

**2011-2012 Hightower Award Recipient – Donald Beaty, TC 9.9**

Don Beaty is being honored by TC 9.9 for being a driving force on TC 9.9 since its inception and as a result for its success in the involvement of its members and the quality of its guides and its handbook chapter. He has been co-author on numerous TC 9.9 guides published for ASHRAE with the most recent being "Structural and Vibration Guidelines for Datacom Equipment Centers -2007" and "Best Practices for Datacom Facility Energy Efficiency -2008" and served in a variety of positions on the TC. He also

gives freely of his time in presenting ASHRAE seminars around the world that cover TC 9.9 technical areas as well as working with ALI in presenting on-line courses.

### **12-13 Roster update process and process for adding provisional CMs**

Remember, the current 2011-2012 roster for your TC, TG or MTG is in effect until after the June meeting this year. The new committee rosters for 2012-2013 will be created based upon the update information that each TC, TG or MTG provides to their section head at this meeting by midnight, Tuesday, 1/24/12 and these new rosters will go into effect on July 1, 2012. Please see your section head for the 2012-2013 Roster Update form if you still need a copy.

By now, each TC, TG and MTG chair should have received a PDF & MS-Excel file of their current 2011-2012 roster from their Section Head for distribution to the committee. In addition, each member can view all of the rosters of their committees on the ASHRAE Website. Go to [www.ashrae.org](http://www.ashrae.org) <<http://www.ashrae.org>>, click on the "Membership" tab in the header, click on "Manage Your Membership" text in the left sidebar, and log in (if you have not logged in lately, you might need to set up a new username and password). Click on the "Biographical Record System" link. Now, you should see your current "bio info". Click on "My Committees" on the left sidebar; all of the committees you are a member of will appear. Click on the "blue" roster text at the left hand side of a committee to reveal the roster with linked contact information. Make sure everyone on your committee also knows how to access the roster.

The Provisional Corresponding Member position is a relatively new position on TC/TG/TRG rosters. This position allows potential new members to be added by staff to the committee roster any time a request for membership is made by an individual. The position has a 2-year term on the committee. Staff will notify the chair and reissue a new roster to the committee any time a provisional member is added. The TC/TG/TRG chair has the option each year during the regular roster update process to convert provisional CMs that have been active participants on the committee the past year into regular CMs or voting members or drop them.

### **TC members cannot speak for TC before other bodies without TC approved position statement**

Please remind all members of your committee that they serve as individuals and are not permitted to speak for the TC before other groups (SSPCs, standing committees, outside groups, etc.) unless they are the official liaison for the TC to that group and any TC position that they present on an issue is supported by a prior TC vote.

### **CEC proposed or recently implemented technical program changes or announcements**

Conferences and Expositions Committee (CEC) had the following announcements concerning the Society's Technical Program for upcoming meetings:

- CEC is implementing a new process to verify that TC's have truly voted to sponsor a submitted program before it is published in the meeting program as a program sponsored by a particular TC.
- Each TC will be asked to annually submit a list of volunteers from the TC that are willing to serve as paper reviewers or session chairs for sessions that are related to the TC's scope.
  - Volunteers from this meeting: Van Baxter, Ray Rite, Vance Payne, Darin Nutter, Craig Messmer
- Due to a low number of conference papers that were submitted for the annual meeting in San Antonio next June, there are now a greater number of slots available for seminars and forums for that meeting. The submission deadline for seminar and forums proposals for the San Antonio meeting is February 13, 2012. Submit proposals to [www.ashrae.org/SanAntonio](http://www.ashrae.org/SanAntonio)
- Starting with the next winter meeting in Dallas, entire sessions can now be proposed through the meeting program submission website

[www.ashrae.org/Dallas](http://www.ashrae.org/Dallas). The submission deadline for proposals is March 19, 2012. CEC strongly encourages TCs to consider proposing an entire session.

- CEC will be offering training at this meeting to TC Program Subcommittee chairs on Tuesday, 1/24, at 11 a.m. in the Speaker's Lounge.

Also, the TC/TG/TRG Chair's Training Workshop on Sunday morning will include a brief presentation and Q&A session with the San Antonio meeting program chair of the Conferences & Exhibitions Committee (CEC), Dunstan Macauley, concerning the next Society meeting technical program and recent or planned changes to it.

### **Upcoming Program Submission Dates**

#### **San Antonio Meeting - June 23-27, 2012**

- San Antonio seminar and forum session proposals are due February 13, 2012
- Final technical papers and final conference papers due March 7, 2012
- Notifications of seminar and forum accept/reject distributed March 16, 2012
- Conference Papers accept/reject notifications distributed March 30, 2012
- Conference Website: <http://www.ashrae.org/sanantonio/>

**Track 1** HVAC&R Systems & Equipment

**Track 2** HVAC&R Fundamentals and Applications

**Track 3** Integrated Energy Systems

**Track 4** Building Modeling Applications

**Track 5** Refrigeration Applications

**Track 6** Indoor Environmental Applications

**Track 7** Integrated Building Controls

#### **Dallas Meeting - January 26-30, 2013**

- Conference site live: January 22, 2012
- Conference Paper abstract/Conf. Paper session proposals due March 19, 2012
- Conference Papers submitted for review are due early July 2012
- Dallas seminar and forum session proposals are due early August 2012
- Conference Website: <http://www.ashrae.org/dallas/>

**Track 1** HVAC&R Systems & Equipment

**Track 2** HVAC&R Fundamentals and Applications

**Track 3** Standards, Guidelines, and Codes

**Track 4** Energy Conservation

**Track 5** Refrigeration

**Track 6** Large Building Design

**Track 7** Facility Management; Operations, Tech. and Energy Improvements

**Track 8** – Special Interest Track

The Conferences and Expositions Committee (CEC) oversees ASHRAE's annual and winter conferences and other specialty conferences and expositions globally. The CEC continually works to improve the conference experience for all attendees. To help keep a "pulse" on the technical issues facing professionals in the HVAC&R marketplace, the CEC seeks ideas for tracks for the Denver, New York and annual and winter conferences beyond as well as topics for specialty conferences from TC members.

Please submit your suggestion using the following link:

<http://www.ashrae.org/events/page/2537>

### **Upcoming Conferences:**

- **High Performance Buildings Conference – A Focus on Deep Energy Savings**, March 12-13, 2012 – San Diego, CA <http://www.ashrae.org/events/page/hpbconf>
- **International Conference on Energy Research and Development**, April 9-11, 2012, Kuwait. [info@icerd5.org](mailto:info@icerd5.org), or [www.icerd5.org](http://www.icerd5.org)

- **CR2012: The 23rd International Exhibition for Refrigeration, Air-conditioning, Heating and Ventilation, Frozen Food Processing, Packaging and Storage**, April 11-13, 2011, Beijing, China. <http://www.cr-expo.com/EN/Index.asp>
- **CIBSE ASHRAE Technical Symposium -- Buildings Systems and Services for the 21st Century**, April 18-19, 2012, Imperial College, London. <http://www.cibse.org/>
- **Fan 2012: International Conference on Fan Noise, Technology & Numerical Methods**, April 18-20, 2011, Senlis, France, <http://www.fan2012conference.org/>
- **5th International Building Physics Conference**, May 28-31, 2012, Kyoto, Japan, [http://rcpt.kyoto-bauc.or.jp/IBPC2012/general\\_infomation\\_id.html](http://rcpt.kyoto-bauc.or.jp/IBPC2012/general_infomation_id.html)
- **Purdue Summer Conferences 2012**  
21st International Compressor Engineering Conference,  
14th International Refrigeration and Air Conditioning Conference  
2nd International High Performance Buildings Conference  
July 16-19, 2012, on the campus of Purdue University in West Lafayette, Indiana  
<http://engineering.purdue.edu/Herrick/Events/2012>
- **COBEE (2ND International Conference on Building Energy & Environment)**, August 1-4, 2012, Millennium Harvest House, Boulder CO  
<http://www.colorado.edu/cobee2012>
- **ICCCS 2012- International Symposium on Contamination Control 2012**, September 3-7, 2012, ETH Zurich, Switzerland <http://icccs.net/>
- **12th Cryogenics 2012, IIR International Conference**, September 10-14, 2012, Dresden, Germany, <http://www.icaris.cz/conf/Cryogenics2012> - Abstract deadline January 31, 2012
- **Cold Climate HVAC 2012**, November 12-14, 2012, Calgary, Alberta, Canada. <http://www.ashrae.org/events/page/coldclimate2012>

5. Agenda additions All
  - a. No agenda additions
6. Liaison reports (as they arrive) Liaisons
  - a. Research Liaison – Stayed for 1581-TRP vote
  - b. TAC Section 8 Head – Steve Duda
    - i. Provided email address for anyone with questions or concerns, [Sh8@ashrae.net](mailto:Sh8@ashrae.net)
    - ii. Reminded TC to complete the roster update spreadsheet and TC activity sheet and to turn them in by the Tuesday deadline.
    - iii. Reminded TC to copy him on the minutes and agenda for committee meetings.
7. Approval of minutes from Montreal Berg
  - a. Mark Spatz moved to approve the minutes from Montreal
  - b. Yunho Hwang seconded
  - c. Motion passed 11-0-1, Reid Hart abstained
8. Membership/Roster Horak
  - a. Byron Horak will roll off as a voting member after June meeting
  - b. 3 more voting members will roll off in 2014 and then 3 more in 2015

- c. The committee will need a secretary after June meeting. Craig Messmer volunteered to be secretary

9. Subcommittee reports

a. Programs

Mark Spatz

- i. The seminar "Impact of Extreme Ambient on Performance of Unitary Air Conditioners and Heat Pumps" was finally approved for this meeting but the time was reduced to 1 hour so 3 instead of 4 presentations will be made. It will be conducted on Wednesday from 9:45 to 10:45am in the Empire Room. The session is chaired by Mark Spatz and the presentations will be:
  - Yunho Hwang -- "Performance Enhancement by Using Vapor Injection Cycle for Extreme Operating Conditions"
  - Rus Johnson -- "Cold Weather Heat Pumps Really Can Work!"
  - Dutch Uselton -- "Heat Pump Energy Performance in Northern Climates"
- ii. The seminar "Measurement Issues and Improvement Opportunities to ASHRAE Standards That Affect Air Conditioner and Heat Pump SEER and HSPF Ratings" suggested by Brian Dougherty was not submitted to ASHRAE in time for the Chicago meeting. The speakers were Chad Kirkwood and Darryl Denton and chaired by Craig Messmer. The subcommittee recommended submitting this seminar for San Antonio
  - 1. Mark Spatz made a motion that TC8.11 sponsor a seminar entitled "Measurement Issues and Improvement Opportunities to ASHRAE Standards That Affect Air Conditioner and Heat Pump SEER and HSPF Ratings"
  - 2. Craig Messmer seconded
  - 3. Motion passed 11-0-0
- iii. New Methods for Performance Predictions for Unitary Equipment – Conference Paper Session for San Antonio
  - linear fit matching evaporator performance to condensing unit performance (Vance Payne)
  - Integrated Energy Efficiency Ratio (IEER) issues – possible speaker Dick Lord of Carrier.
  - Prediction of Cd – Brian Dougherty's previous work.
  - Lorenzo might have a student working on a paper
  - Vance will email some other professors to see if he can get more papers

Mark Spatz made a motion to submit a conference paper session for Dallas entitled "New Methods for Performance Predictions for Unitary Equipment"

Van Baxter seconded

Motion passed 11-0-0
- iv. Systems for Low Energy Homes – Ram Narayanamurthy had suggested a seminar (or possibly a forum) on systems for low energy homes (low SHR, liquid desiccant, controls). Bill was to chair and 2 to 3 speakers identified could be either seminar or paper. Status (originally suggested for Chicago but not submitted?)
  - 1. Is there continued interest to submit this seminar? Bill Murphy will follow up with the presenters he had originally contacted.
- v. Review of upcoming standards and their impact on the industry from 3 different perspectives
  - 1. Government (DOE)
  - 2. Manufacturer Impact
  - 3. End User Impact – maybe from a representative from ACCA
  - 4. John Douglas (Lennox) possible chair
  - 5. Target Dallas for seminar
- vi. High Ambient Operation of Unitary A/C and Heat pumps – Dutch Uselton
  - 1. Impact of region standards

2. More emphasis on EER vs SEER
  3. Compressor viewpoint (maybe Hung Pham from Emerson)
  4. Target seminar for Dallas
  5. Van Baxter volunteered to chair
- vii. Performance and Issues Relating to Use of LGWP Refrigerants
1. Could get data from the AHRI AREP effort.
  2. Not likely till Dallas.
- viii. Dane Christensen proposed several papers/session, will define the program topic.
1. This will include info from the Western Cooling Challenge.
  2. Conference paper session on new HVAC technologies
  3. NIST, NREL, Western Cooling challenge
  4. Target for Dallas
  5. Dane Christensen would chair the session
  6. Mark Spatz made a motion to sponsor conference paper session on this topic
  7. Reid Hart seconded
  8. Motion passed 11-0-0
- ix. Ram - 6.3 wants to cosponsor a seminar on Regional standards that had not been accepted for the Chicago meeting.
1. 6.3 is now interested in cosponsoring for San Antonio
  2. Mark – Moved to sponsor a seminar on regional standards
  3. Van Baxter seconded
  4. Discussion – Craig asked if manufacturers and contractors could be added. Could have someone from ACCA or HARDI. Decided to make the manufacturer/contractor portion a follow up in Dallas. Item v. above could be used as the follow up seminar.
  5. Vote 11-0-0

b. Research

Ray Rite

- i. Research Chair Meeting: Monday, 23 January 2012 6:30-8:00aS
- 1) Service to ASHRAE Research award to Dru Crawley from TC 4.2
  - 2) GPIC – Greater Philadelphia Research Innovation Cluster Research Fund. ASHRAE promoting this as a co-funding vehicle. See [www.gpichub.org](http://www.gpichub.org) for details.
  - 3) 65 applications received for Grants-In-Aid from graduate students.
  - 4) Five nominations received for New Investigator Award.
  - 5) Research Funding Status
    - a) 2011-12: 71 projects under contract, 16 completed
    - b) 10 TRPs went out for bid in Fall 2011, WS – 5 approved will go out for bid or re-bid in Spring 2012 provided there is funding
    - c) 5 URPs are being considered by RAC. Considered to be too many. New rules will be developed to better define when a URP is appropriate and when proper channels must be followed (RTARS and WS from TCs)
    - d) 53 research topics are under development (23 RTARs, 14 WS, and 16 TRPs (last year 64)
    - e) Currently RAC has 6 RTARS and 2WS to evaluate, too low a number, 1-2 year from WS – bid There is concern that we could run out of projects. Get your RTARs in!
    - f) New RTAR cover sheet on website soon.
    - g) Use your liaison: submit to them for review. They cannot fight for your RTAR/WS if they don't understand what it is.
    - h) Why are RTARS returned: idea not appropriate, inadequate references, not clear how it will advance SOTA, budget out of whack.

ii. Research Projects

1. *Complete – none*
2. *Active - none*
3. *Out for Bid-*

1581 TRP - "Develop alternate setup guidelines for Unitary Air Conditioner test configurations which cannot adhere to ASHRAE specified duct dimensions and external pressure tap locations"

PES: Eric Berg(Chair), Chad Kirkwood, Byron Horak, Ray Rite

Status: Work statement was modified to address concerns and rebid in October. Received one bid for the revised work statement.

- Ray Rite made a motion to accept the bid
- Motion passed 11-0-0
- Ray/Eric e-mailed Liaison David Yashar with vote on bid and scoring. Was submitted to Mike Vaughn on 1/24.

### iii. Work Statements

1. *Accepted - none*
2. *In-Progress*

WS1608 - Develop Comprehensive Performance Rating (CPR) for Unitary HVAC, Phase 1. (Reid Hart)

Status: Revisions still needed. No activity on this since last meeting. Final deadline is 10/1/2013. Reid will address revisions by May or it will be dropped. Craig Messmer will work with author and see if this WS can address his interest in how to test variable speed cyclic degradation.

### iv. RTARs

1. *Accepted*

RTAR1642 - Improved Compressor Performance Modeling Methodology for use in System Simulation Programs (Ray Rite)

Status: Submitted on 4/18. Returned by RAC in June with mandatory changes: (alignment with research plan and co-sponsorship by AHRI) Re-submitted to RAC on 12/9. Evaluated by RAC on 1/21 and was well-received and accepted. Two comments: (1) Add model for other compressor types (Increase scope), (2) Looked to be analytical with existing data. Why 2 years and that money for analytical only? Will address in workstatement.

2. *Submitted - none*
3. *In-Progress – none*

### v. Co-Sponsoring Requests

1. *TC 8.4: 1645 "A Research Study to Determine and Compare New Accelerated Corrosion Tests for Microchannel and Standard Tube & Fin Heat Exchangers"*

Status: TC 8.4 will do an e-mail ballot. TC 8.11 has already voted to co-sponsor RTAR. If we want to co-sponsor, will need another vote after 8.4 accepts. Will arrange e-mail ballot. We should have a member of the PES. Rusty Tharp volunteered to be on PES. Dutch had some comments. It is a worthwhile endeavor but is the project bigger than the author envisioned. This one project will not solve all the questions and result in the ultimate corrosion test. Needs to be a series of discrete projects. 3ys \$180k is also an odd combination. These comments were relayed to TC 8.4. Author will address them in revision.

2. *"Investigation of Air-side Fouling on Outdoor Condensing Heat Exchangers"*

Status: RTAR still being developed by Chad Boyers.

vi. Research Ideas

a) *Existing Ideas*

- (1) Reducing Cyclic Testing - Estimating Cd (Eric Berg)  
Status: Start on RTAR has been made by Eric. Currently just covers cooling Cd. Should it include heating? Expands project considerably. Eric to take into consideration.  
Action Item: Dutch Uselton, Rusty Tharp, and Rite have volunteered to provide some input.
- (2) Unaccounted for Application loads including Solar on OD Units Roof Tops ()  
Status: Little interest. No owner. **Strike from list.**
- (3) Rooftop Unit Durability – Effect of degradation on reliability of a unit over time ()  
Status: NREL doing study. No conclusions yet. Dane Christenson will report out on that. 1Q13. **Strike from list.**
- (4) Systems for NZE homes (Ram Narayanamurthy)  
Status: Ram not present. There is a program idea on this. **Strike from list**
- (5) Oil Retention and Oil Return in a System with R410A (Rite/Mark Spatz)  
Status: There have been studies but not sure if there is a definitive conclusion documented in ASHRAE handbook. Yunho Hwang to send previous work from Maryland. Variable speed poses its own issues at reduced speed. This is dealt with by use of double pipe recommendation for commercial. Handbook has no mention of what to do for variable speed. Oil retention in microchannel HX also related and there is a TC 8.4 project on this. TC 1.3 is also having a seminar on oil retention at the Dallas meeting. System topic to be included from Honeywell rep. Will propose TC 8.11 co-sponsor this seminar.  
Action Item: Rite will summarize in a paragraph or two for next meeting. Mark Spatz will review and offer comment. Rite will propose co-sponsoring a TC 1.3 seminar on topic for Dallas.
- (6) Charging Method for Heat Pumps in Heating Mode. ()  
Status: California has a requirement. Manufacturers have their own methods. Cold climate heat pumps might bring this back up as a topic. If you have to charge during cooling, how to validate in heating? **Strike from list.**
- (7) Heating Mode Linear Fit (Vance Payne)  
Status: Interest was high. Only have NIST ratio for heating. Linear fit for cooling but not heating. Research to generate model. May need data. No interest from DOE right now.  
Action Item: Vance to send Rite a paragraph or two about topic.

b. *New Ideas*

- (1) Variable speed Cyclic Loading - (Craig Messmer)  
How to do this? Can we use WS1608 to address this? Craig will get with Reid for that. Purdue has been doing testing on VRF and the controlling of mini-/multi-splits.
- (2) Unitary MOT Sample Tree Specifications (Rusty Tharp)  
No hard and fast rules on sampler designs. SPC 41.2 would be the logical sponsor. Possible co-sponsor by TC 8.11. Rite to contact Pat Collins at 41 about co-sponsoring.
- (3) Unitary Airflow testing (Rusty Tharp)  
Are design parameters sufficient: nozzle combinations, spacing, ... ? SPC 41 also logical sponsor. TC 8.11 can co-sponsor. Rite to contact Pat Collins at 41 about co-sponsoring.
- (4) Investigation of Heat Pump Test Procedure (Dutch Uselton).  
Current methodology is from 1979. Where does frosting really begin? Rating method assumes frost at 46F, so defrost penalty starts under 47F. Not true for higher efficiency equipment. Project would be to show that you can't get frost at 46F. If so, standard needs to change. Develop rules/correlation that would probably be a function of COP.
- (5) Ratings of OD Condensing Units (Rusty Tharp)  
DOE wants to regulate OD condensing units due to replacement of just OD for R22 dry ship. Is there an MOT? What is the impact of replacing just the OD section? Needs to jive with SEER and EER. ASHRAE Std 0 may be applicable. For R410A replacement for R22, what about oil left from old installation? Effect of residual mineral oil on R410A system? No definitive study but TC 3.1 has looked at it. Three oil changes were recommended at one point. Now only one oil changes are done.

c. Handbook

TBD

- i. Dutch Uselton volunteered to be handbook chair
- ii. Chapter 1 in Applications – Residences
  1. Vance Payne, Ray Rite and Byron Horak volunteered to help review the chapter.

d. Standards

Chris Stone

- i. [ANSI/ASHRAE 16-1983 \(R2009\)](#)  
1988  
Standard 16-1983 (R2009) -- Method of Testing for Rating Room Air Conditioners and Packaged Terminal Air Conditioners (ANSI Approved)
  1. SPC Chair: Mark Paquette
  2. SPC Liaison: Janice Peterson
  3. Standards 16 and 58 are being combined into one standard with the number designation being 16. Standards Project Committee (SPC) 16, *MOT for Rating Room Air Conditioners and Packaged Terminal Air Conditioners/Heat Pumps* meets on Tuesday, June 28, 2011 from 8:00 am to Noon. To maintain its ANSI accreditation, Standard 16 was reaffirmed in 2009 while the SPC continues its current revision process. **Chairman Paquette**

reports that the committee continues to make progress on the revision and expects to have the draft completed by the conclusion of the June meeting in 2012.

ii. [ANSI/ASHRAE 37-2009](#)

2009

Standard 37-2009 -- Methods of Testing for Rating Electrically Driven Unitary Air-Conditioning and Heat Pump Equipment (ANSI Approved)

1. Standard has been reaffirmed in 2009.

2. In accordance with the requirements of Normative Appendix N2 of the Standards Committee *Manual of Procedures* (MOP – 10/3/2008), TC 8.11 (the cognizant Technical Committee) is asked to vote to recommend to the Standing Reaffirmation Subcommittee (SRS) of the Standards Committee whether the subject standard should be

- ❖ Revised,
- ❖ Reaffirmed, or
- ❖ Withdrawn

3. Section N2.5 of the Standards Committee MOP states that “Following an interval of not more than three years after publication of each standard or guideline, the cognizant committee shall recommend to SRS reaffirmation, revision or withdrawal of the standard or guideline.” The three year date for Standard 37-2009 is **6/25/2012**.

4. Since 37 and 116 are closely linked, it would be beneficial to open them both at the same time

5. Chris Stone made a motion to start an SPC to Revise ASHRAE 37

6. Craig Messmer seconded

7. Discussion – Vance asked if Staff reviewed the standard, the answer was no. Craig Messmer asked for clarification on deadlines.

8. Motion passed, 11-0-0

9. Potential Members – Chard Kirkwood, Darryl Denton, Byron Horak, Chris Stone, Eric Berg, Vance Payne

10. Potential Chair – Chris Stone

iii. [ASHRAE 58-1986 \(R2009\)](#)

2009

Standard 58-1986 (R2009) -- Method of Testing for Rating Room Air Conditioner and Packaged Terminal Air Conditioner Heating Capacity (ANSI/ASHRAE Approved)

1. See discussion provided above under ASHRAE 16-1983 (R2009). Standard to be combined with ASHRAE 16

iv. [ASHRAE 116-2010](#) (2010)

Standard 116-2010 -- Methods of Testing for Rating Seasonal Efficiency of Unitary Air Conditioners and Heat Pumps

1. SPC Chair: John Talbott

2. SPC Liaison: Allan Fraser

3. Standard 116 has completed the update and has been released in 2010.

4. Chris Stone made a motion to start an SPC to revise ASHRAE 116 before it is due.

5. Craig Messmer seconded

6. Discussion - Ray Rite asked if two standards had been opened at the same time on this committee. The answer was no. The reason to open them at the same time is to get them on the same revision schedule and that there are many aspects of the standards that are related.
  7. Motion passed, 11-0-0
  8. Potential Members – Chard Kirkwood, Darryl Denton, Byron Horak, Chris Stone, Eric Berg, Vance Payne
  9. Potential Chair – Chad Kirkwood
- v. [ANSI/ASHRAE 137-2009](#) (2009)  
Standard 137-2009 -- Methods of Testing for Efficiency of Space-Conditioning/Water-Heating Appliances that Include a Desuperheater Water Heater (ANSI/ASHRAE Approved)
1. Lead TC: 6.6 (Service Water Heating)
  2. Co-cognizant TC: 8.11
  3. The ASHRAE Reaffirmation process and ANSI accreditation of Standard 137 was completed in January 2009. Although the cognizant technical committees may recommend action sooner, the next scheduled consideration on whether to revise, reaffirm, or withdraw Standard 137 is January 29, 2012. The next decision on Standard 137 should consider whether this standard should be revised to address the next generation of integrated heat pump designs. In the past, a few attendees have offered to serve on an eventual SPC, but no one has volunteered to chair the effort.
- vi. SPC 206 - Method of Test for Rating of Multi-Purpose Residential Heat Pumps for Space Conditioning, Water Heating and Dehumidification
1. SPC Chair: Wayne Reedy
  2. A number of meetings have been scheduled since Montreal in June. Significant progress has been made and this SPC will be meeting in Chicago Monday January 23, 2:15 – 5:00pm
- vii. SSPC 41 –Standard Methods for Measurement
1. Most of the SPC's under this section are of interest to TC8.11 as there are referenced and used within the standards maintained by this TC. Input to these SPC's are encouraged so the methods of test can refer to them as required.
- viii. **ISO Technical Committee 86 (Refrigeration and Air Conditioning)**  
**Subcommittee 6 (Air Conditioners and Heat Pumps)**
- Secretariat: [ANSI](#)
  - Secretary: Mr. David C. Delaquila
  - Chairperson: Mr. Daniel Ellis (USA) until end 2011

Working Group Designations – Not all are active

TC 86/SC 6/WG 1 Air-source air-conditioners and heat pumps

TC 86/SC 6/WG 2 Equipment sound ratings

TC 86/SC 6/WG 3 Water and brine source heat pumps and air

TC 86/SC 6/WG 4 Air-conditioning condensing units - Testing and rating for performance

TC 86/SC 6/WG 7 Hydronic fan-coil units

TC 86/SC 6/WG 8 Water cooling towers

TC 86/SC 6/WG 9 Air distribution devices - STANDBY

TC 86/SC 6/WG 10 Energy recovery ventilators  
TC 86/SC 6/WG 11 Water chilling packages using the

**Current Activity:**

Working Group 1 of ISO TC 86/SC6 is currently working on three new standards and one new guideline as new components in addition to ISO Standards 5151, 13253, and 15042: These have been previously released at the CD Stage in 2010 and comments were reviewed in the 2011 January meeting. A number of changes have been made along with significant reformatting.

ISO released the three draft standards below dealing with seasonal performance factor on January 13, 2012 for 5-month Draft International Standard (DIS) ballot. The ballot ends 13 June 2012. This is the opportunity for US to review and provide technical comment on the drafts. Please review the drafts and provide your comments by 20 April 2012.

**ISO/DIS 16358-1**

Air-cooled air conditioners and air-to-air heat pumps — Testing and calculating methods for seasonal performance factors  
Part 1: Cooling seasonal performance factor

**ISO/DIS 16358-2**

Air-cooled air conditioners and air-to-air heat pumps — Testing and calculating methods for seasonal performance factors  
Part 2: Heating seasonal performance factor

**ISO/DIS 16358-3**

Air-cooled air conditioners and air-to-air heat pumps — Testing and calculating methods for seasonal performance factors  
Part 3: Annual performance factor

ISO/DTS 16491 - Guidelines for the evaluation of uncertainty of measurement in air conditioner and heat pump cooling and heating capacity tests

Final draft was completed in July 2011. CD approved for registration as DIS. November 2011

**Current Activity:**

ISO Std 5151:2010, Non-ducted air conditioners and heat pumps — Testing and rating for performance. *Updated Standard was released in June 2010 as a revision to 1994 version.*

ISO 13253:2011, Ducted Air Conditioners and Air-to-Air Heat Pumps – Testing and Rating for Performance. **APPROVED June 2011**

ISO/NP 15042:2011, Multi-Split System Air Conditioners and Air-to-Air Heat Pumps – Testing and Rating for Performance **APPROVED November 2011**

[ANSI/ASHRAE 13256-1:1998](#) (2005)

Standard 13256-1:1998 Water-source Heat Pumps Testing and

Rating for Performance Part 1: Water-to-air and Brine-to-air Heat Pumps (ANSI/ARI/ASHRAE ISO)

This standard has been co-adopted by ASHRAE and AHRI and carries ANSI designation. The standard is referenced in ASHRAE Standard 90.1, is used in the AHRI certification program, and is available for purchase from ASHRAE. The 1998 standard was reaffirmed by ISO in early 2005.

[ANSI/ASHRAE 13256-2:1998](#) (2005)

Standard 13256-2:1998 Water-source Heat Pumps Testing and Rating for Performance Part 2: Water-to-water and Brine-to-water Heat Pumps (ANSI/ARI/ASHRAE ISO)

See discussion under ISO Standard 13256-1.

- e. Web site Darin Nutter
  - i. Website has latest agenda and minutes
  - ii. ASHRAE is developing the new logo and will provide new code to update the website.

10. Old Business

- a. None

11. New Business

- a. Mark Spatz – TC8.11 representation on MTG for low GWP refrigerants
  - i. Need to approve a representative and an alternate
  - ii. First meeting would be in San Antonio, with two teleconferences prior to the meeting
  - iii. Van Baxter made a motion to approve Mark Spatz as the TC 8.11 representative with Yunho Hwang as alternate
  - iv. Yunho Hwang seconded
  - v. Motion passed 10-0-1, Mark Spatz abstained
- b. SPC 207, sponsored by 7.5, Laboratory Method of Test of Fault Detection and Diagnostics Applied Commercial Air-Cooled Packaged Systems
  - i. Darin Nutter made a motion to appoint Vance Payne as liaison for TC 8.11
  - ii. Van Baxter seconded
  - iii. Motion passed, 10-0-1, Vance Payne abstained
- c. Standard 205 – Standard Representation of Performance Simulation Data for HVAC&R and Other Facility Equipment
  - i. Reid Hart mentioned that this standard could pertain to TC 8.11.
  - ii. The TC did not take any action on this topic.
- d. Dutch Uselton - ASHRAE has a new utility on the website to check the definitions of different terms that will list the different definitions of the term from all the standards.

12. Adjourn

- a. Motion made by Van Baxter
- b. Seconded by Ray Rite
- c. Time 6:12 p.m.