

# TC 1.2 – Instruments and Measurements: Summer St. Louis 2016 Meeting Minutes - Main Committee Meeting

1:00 – 3:30 PM, June 28, 2016; America’s Center CC Complex: Floor 2 Room 265

***These draft minutes must be approved by this committee to be the official record***

## **Attendees**

<b>Name</b>	<b>Affiliation</b>	<b>Email Address</b>	
Jim Douglas	Imagineering and More	<a href="mailto:jim.douglas.imagineering@gmail.com">jim.douglas.imagineering@gmail.com</a>	
Steve Idem	Tennessee Tech Univ.	<a href="mailto:sidem@tntech.edu">sidem@tntech.edu</a>	
Frank Spevak	Energy Conservatory	<a href="mailto:fspevak@energyconservatory.com">fspevak@energyconservatory.com</a>	
Mike Wegenka	Trane	<a href="mailto:mwegenka@trane.com">mwegenka@trane.com</a>	
Terry Beck	Kansas State Univ.	<a href="mailto:tbeck@ksu.edu">tbeck@ksu.edu</a>	
Margaret Mathison	Iowa State Univ.	<a href="mailto:3mathison@gmail.com">3mathison@gmail.com</a>	
John Neel	Johnson Controls/Frick	<a href="mailto:john.l.neel@jci.com">john.l.neel@jci.com</a>	
Dr. David Yuill	University of Nebraska	<a href="mailto:dyuill@uni.edu">dyuill@uni.edu</a>	
Dr. Amir Jokar	Exponent, Inc. (Thermal)	<a href="mailto:ajokar@exponent.com">ajokar@exponent.com</a>	
Conner Hayes	Trane-Ingersoll Rand	<a href="mailto:Conner_Hayes@irco.com">Conner_Hayes@irco.com</a>	
Lloyd Le	Phoenix Controls	<a href="mailto:lle@phoenixcontrols.com">lle@phoenixcontrols.com</a>	
Hongmei Liang	Carrier	<a href="mailto:hongmei.liang@carrier.utc.com">hongmei.liang@carrier.utc.com</a>	
Robert Moss	Dwyer Instruments	<a href="mailto:rmoss@dwyermail.com">rmoss@dwyermail.com</a>	
Stephen Wage	Intertek	<a href="mailto:stephen.wage@intertek.com">stephen.wage@intertek.com</a>	
Dr. Houjun Yang	North Dakota State	<a href="mailto:yanghuojun@gmail.com">yanghuojun@gmail.com</a>	
Craig Hickman	SPX Cooling Technologies		
Kiame Koosha	University of Miami	<a href="mailto:Knk167@miami.edu">Knk167@miami.edu</a>	
Sheila Porter	CPI Fluid Engineering	<a href="mailto:mcfo@cpifluideng.com">mcfo@cpifluideng.com</a>	
Steven Rogers	The Energy Conservatory	<a href="mailto:srogers@energyconservatory.com">srogers@energyconservatory.com</a>	

## **Administrative:**

- 1. Call to order/introductions/establish quorum: Frank Spevak**  
4 of 6 voting members are present. Quorum was established.  
4 YEA members present.

Attendance:

**VM (Present):** Michael Wegenka, Frank Spevak, Jim Douglas, Steve Idem

**VM (Absent):** James Schaefer, John Scott

- 2. Review of the agenda**  
Frank reviewed the agenda.

### 3. TC Chair's breakfast –Frank Spevak

Notes from TC Chair Section 1 Meeting

Sunday 6/26/16 – St. Louis, MO

Notes of significance to TC 1.2 Instruments and Measurements

- Carryover discussion from Orlando meeting regarding speakers completing a Bias Form prior to them being allowed to present. The requirement of a Bias form will be effective for Las Vegas. General dislike of this as an additional form that may trigger a company legal evaluation of the speaker. Desire that speakers who are not necessarily ASHRAE members should publish their Bias information as background information to the presentation.
- CEC Liaison expressed that most program rejections are due to bad communication, the description is less than sufficient to understand that concept of the presentation.
- A new MTG is being considered – MTG.ACR (Air Change Rate). It is proposed that the new MTG will help evaluate the technical basis and adoption of airflow rate specifications in terms of Air Change Rate (ACR) or Air Changes per Hour (ACH) for spaces such as cleanrooms, laboratories, patient rooms, operating rooms, and other similar spaces.
- New TC website template – Looking for feedback. (Will discuss in Webmaster report.)
- Additional TC E-mail Position Aliases Now Available - New position e-mail alias addresses have now been created for each of the remaining mandatory positions of the Technical Committee management team (Secretary, Standards Sub. Chair, Program Sub. Chair, Handbook Sub. Chair, and Webmaster).
- New restructured TC MOP after St. Louis - TAC has restructured the TC MOP so that it is easier to navigate and find information. The new TC MOP can be found on the ASHRAE website [www.ashrae.org/TCs](http://www.ashrae.org/TCs) under the heading *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs*.
- Basecamp Information for Electronic Communication - Thanks to the efforts of the Society's Electronic Communication Committee (ECC) many TCs are now taking advantage of an online

collaborative tool called *Basecamp* in order to carry-out their committee work in a more efficient fashion. If your TC is interested in possibly establishing your own Basecamp, please go to the following link to learn more about Basecamp:

<https://www.ashrae.org/basecampguidance>. To establish a Basecamp, please contact Joslyn Ratcliff, at [ecstaff@ashrae.net](mailto:ecstaff@ashrae.net)

- RPM (Remote Participation Meetings) being held in St. Louis - The 10th RPM beta test (Remote Participation Meetings – Formerly known as E&P meetings), which allows some TC members to participate in the TC meeting from a remote location electronically, will occur in St. Louis and the following fifteen TCs have agreed to participate in this test: TC 1.5, TC 1.10, TC 1.12, TC 2.2, TC 4.2, TC 5.8, TC 6.8, TC 6.9, TC 7.3, TC 7.9, TC 8.4, TC 8.8, TC 9.2, TC 10.2, TC 10.3 – This represents a 25% increase over the number of TC’s hosting RPM meetings in Orlando. A total of 38 RPM meetings will be hosted in St. Louis when you include project committee meeting. For comparison, a total of 31 RPM meetings were hosted in Orlando. The chairs of those TCs participating should provide to their Section Head feedback on their RPM meeting experience before TAC meets on Wednesday morning, 6/29.
- There were 187 sub-committee meetings in Orlando. There will be an effort to promote more sub-committee meetings before the main meeting and done remotely. This would free up rooms for possibly more presentations or reduce the number of rooms so that annual meetings could go to cities/hotels that do not have as many rooms.

#### **4. Liaison reports**

Section head: Amir Jokar came and requested that we give him any comments to take back to the Section head meeting on Wednesday. He went over several of the same issues that Frank had discussed. Membership and quorum was discussed to see if we have been having any problems.

#### **5. Membership – Frank Spevak gave the update.**

Voting members rolling off as of 7/1/16:

James Schaffer

Voting members rolling on as of 7/1/16:

John Neel  
Hongmei Liang  
David Yuill  
Craig Bradshaw

This will bring the voting membership to 9.  
Four YEA members were present at the meeting.

### **Review and approval of minutes from Orlando meeting**

Motion to approve minutes by Mike Wegenka and seconded by Steve Idem.  
Motion carried: (4-0-0-2 Chair voting).

### **Standards – Jim Douglas**

Jim gave a report on SSPC 41 and SPC 23.1R. A written report is included as an Appendix B to these minutes.  
In addition the topic of Guideline 2 was discussed.

Approximately 7 of the 10 SSPC41 standards refer to ASHRAE Standard Guideline 2 which is officially being discontinued by ASHRAE. This will cause referencing issues for the 41 standards. Rick Hall has established an Ad Hoc committee to investigate the topic of Uncertainty Examples with Christopher Stone acting as chair. Request for membership was made and 8 members volunteered. (Rick Hall, Christopher Stone, Hongmei Liang, Pat Collins, Mark Kedzierski, Terry Beck, Michael Wegenka, Doug Collings, and Michael Shows. Since the SSPC41 ended early, the Ad Hoc committee stayed on to hold their first unofficial meeting. Action items and ideas of what examples should be included were discussed.

### **Handbook – Terry Beck**

Terry completed all of the revisions and submitted a letter ballot which was approved. The Approved form was submitted by the May 31, 2016 deadline to ASHRAE. Terry also attended a Handbook Chair's meeting. ASHRAE is introducing an electronic method (Internet Explorer) to look at standards. The link to the method: [authoring.ashrae.org](http://authoring.ashrae.org)

A new meeting was held on Monday, June 27 from 4 to 6 p.m. A general discussion was held.

### **Research – Frank Spevak**

Frank gave a report on the research subcommittee chairs' breakfast. A written report is appended to these minutes in Appendix A.

A discussion brought forth by Terry Beck was to possibly submit a project to develop a laboratory testing tool to measure air flow in ductwork that would be more accurate. Present errors in measurement occur in ductwork in the vicinity of duct fittings, such as tees and elbows).

At the SSPC41 meeting there appeared to be support and it was recommended to bring it up to the TC1.2 and then SSPC41 could co-sponsor the RTAR request.

After the discussion it was decided to table the discussion until the winter meeting at Las Vegas.

### **Programs Subcommittee Chair's report – Steve Idem**

- A. Seminar 38: ASHRAE Research: Airflow and Ducts outlining ASHRAE RP-1245 was held at the St. Louis meeting on Tuesday, June 28<sup>th</sup> at 9:45 a.m. Craig Hickman and Terry Beck both presented technical papers at the seminar. Attendance was good.
- B. A conference paper: "Verification of Accuracy of Air Flow Measurement Using the Multi-Nozzle Chamber Method" was presented by Pat Collins on Monday, June 27<sup>th</sup> at 11 a.m. Attendance was good.
- C. New program ideas:  
Seminar forums must be submitted by August 8<sup>th</sup>.  
One idea was to do a seminar on tracer gas measurement technology.

### **Website status report – Michael Wegenka**

ASHRAE has updated the tools for websites to automate some of it and make it an online format instead of needing specialized software.

Michael has used the new tool and has uploaded the committees information.

**New/unfinished business:**

None was presented

**Adjournment:**

Michael Wegenka motioned to adjourn with Steve Idem seconding. Meeting concluded at 2:19 PM

## **Appendix A: Research Report – Frank Spevak**

ASHRAE Research Sub-Committee Breakfast Meeting  
Monday June 27, 2016, St. Louis, MO

Main points-

- RAC looking into more Applied Research
- Evaluate concept of allocating Research funds for post project processing that will produce tools, presentation, etc that add value to the membership and society
  - Could be a second bid package for the post data research project to perform applied research to make a tool
- Presidential AdHoc Impact of ASHRAE Research on society has transitioned into an MTG with Dan Pettway as chair
- ASHRAE is not accepting URP as there are changes taking place and information will be posted after St. Louis
- Updated Research Manual will be posted after St. Louis that will include new milestones for PMS as well as other changes
- RAC will place emphasis on PMS training with new milestones, chairs and committees
- ASHRAE has been placing completed Research online. Presently there are about 250 projects online. Access to final report is available to ASHRAE members free of charge. Will eventually have all research online, roughly 1,000 projects.
- RTAR and Work Statements
  - 9 RTARs considered – 1 accepted, 4 conditionally accepted, 4 rejected
  - 10 work statements considered – 6 conditionally accepted, 4 returned
  - Conditionally accepted – provide a cover letter of how the comments were addressed
  - All co-sponsoring TCs should be providing input to the RTAR and WS development
  - Abstentions and negative votes require reasons for the abstention or negative vote
- It is the responsibility of the Research Sub-Committee Chair to know what can or can't be done and to convey the same to the PES/PMS chairs and the TC

## **Appendix B – Standards Subcommittee Report – Jim Douglas**

SSPC41 met on Sunday June 26 from 1 to 4 p.m. at the America's Convention Center Complex Room: 242. The subcommittee reviewed the progress of all of the 41 series standards that are currently in progress as well as those that will be coming up for periodic maintenance.

### **Subcommittee 41.1, Standard Methods of Temperature Measurement – E. Anderson**

41.1 revision subcommittee met for the first time on Tuesday, June 28 from 10:00 am to noon. Committee began their work on the update of the standard. It was determined that there should be considerable work on updating this standard for the current technology and measurement techniques. New members and guests are always welcomed.

### **Subcommittee 41.2, Standard Methods of Air Velocity and Airflow Measurement – T. Beck**

41.2-2016 is in the publication process.

### **Subcommittee 41.3, Standard Methods for Pressure Measurement – F. Spevak**

41.3-2014 will be due for periodic maintenance in January 2017.

### **Subcommittee 41.4, Standard Methods for Measurement of Proportion for Lubricant in Liquid Refrigerant – J. Douglas**

41.4-2015 will be due for periodic maintenance in January 2018.

### **Subcommittee 41.6, Standard Methods for Humidity Measurement – P. Collins**

41.6-2014 will be due for periodic maintenance in January 2017.

**Subcommittee 41.7, Standard Methods for Gas Flow Measurement – J. Scott**

41.7-2015 will be due for periodic maintenance in January 2018.

**Subcommittee 41.8, Standard Methods for Liquid Flow Measurement – J. Scott**

41.8-2016 is in the publication process.

**Subcommittee 41.9, Standard Methods for Refrigerant Mass Flow Measurement Using Calorimeters – M. Perevozchikov**

The 41.9 revision subcommittee committee met on Monday, January 27, from 8:00 am to noon. Committee made good progress. New action items were given out to the membership including the uncertainty analysis and appendix examples. An interim meeting will be schedule for the end of October. New members and guests are always welcomed.

**Subcommittee 41.10, Standard Methods for Refrigerant Mass Flow Measurement Using Flowmeters – J. Neel**

The 41.10 revision subcommittee met for the first time on Tuesday, June 28 from 8:00 to 10:00 am. First pass of the existing standard was completed. A review of the Title, Purpose, and Scope was agreed upon and a letter ballot will be sent to the SSPC41 membership for approval and then sent to ASHRAE for approval. Committee made good progress for the first meeting . New members and guests are always welcomed.

**Subcommittee 41.11, Standard Methods for Power Measurement – R. Hall**

41.11-2014 will be due for periodic maintenance in January 2017.

**Summary of 41-Series Standards Development**

Since ASHRAE authorized the formation of SSPC 41 in 2005:

8 standards have been published (41.1, 41.3, 41.4, 41.6, 41.7, 41.9, 41.10, and 41.11)

2 standards (41.2 and 41.8) are in the process of being published

1 standard (41.12) has been approved to be disbanded

2 standards are presently being worked on for periodic maintenance (41.1, 41.9)

**Subcommittee SPC 23.1R, Margaret Mathison, Chair, *Methods of Testing for Performance Rating Positive Displacement Refrigerant Compressors and Condensing Units That Operate at Subcritical Pressures of the Refrigerant***

The subcommittee met on Monday afternoon and made progress on the standard and has two interim meetings planned to be held prior to the winter 2017 meeting in Las Vegas. The proposed date for the PPR1 draft of January 2017 as moved to be voted on after the winter 2017 meeting in Las Vegas.