TC 1.2 – Instruments and Measurements: Summer Long Beach 2017

Meeting Minutes - Main Committee Meeting

1:00 - 3:30 PM, June 27, 2017; Long Beach Convention Center Room: Seaside 6

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

Attendees

Name	Affiliation	Email Address	Status
Jim Douglas	Imagineering and More	jim.douglas.imagineering@gmail.com	Voting
Steve Idem	Tennessee Tech Univ.	sidem@tntech.edu	Voting
Frank Spevak	Energy Conservatory	fspevak@energyconservatory.com	Voting
Mike Wegenka	Trane	MWn2Cobras@gmail.com	Voting
Terry Beck	Kansas State Univ.	tbeck@ksu.edu	
John Scott	Natural Resources	john.scott@canada.ca	Voting
	Canada.		Voting
John Neel	Johnson Controls/Frick	john.l.neel@jci.com	Voting
Dr. David Yuill	University of Nebraska	dyuill@unl.edu	Voting
Dr. Amir Jokar	Exponent, Inc. (Thermal)	ajokar@exponent.com	
Connor Hayes	Trane-Ingersoll Rand	Connor_Hayes@irco.com	
Craig Bradshaw	Torad Engineering	craig.bradshaw@toradengineering.com	Voting
Hongmei Liang	Carrier	hongmei.liang@carrier.utc.com	
Stephen Wage	Intertek	stephen.wage@intertek.com	
Dr. Huojun Yang	North Dakota State Univ	huojun.yang@ndsu,edu	Voting
Tyler Swanson	Intertek	tyler.swanson@intertek.com	
Steven Rogers	The Energy Conservatory	srogers@energyconservatory.com	

Administrative:

1. Call to order/introductions/establish quorum: Frank Spevak

9 of 9 voting members are present. Quorum of 5 was established. 4 YEA members present.

Attendance:

VM (Present): Michael Wegenka, Frank Spevak, Jim Douglas, Steve Idem, David Yuill, Craig Bradshaw, Huojun Yang, John Neel, John Scott **VM (Absent)**:

2. Review of the agenda and ASHRAE Code of Ethics

Frank read the ASHRAE Code of Ethics. Frank reviewed the agenda.

3. Review and approval of minutes from the Las Vegas winter meeting meeting

There were two corrections. Connor Hayes was misspelled. Craig Bradshaw was listed as rolling on in 7/1/17. He was already a voting member on 7/1/16. Motion to approve minutes by Steve Idem and seconded by Mike Wegenka. Motion carried: (8-0-0-1 Chair voting).

4. TC Chair's breakfast -Frank Spevak

Notes from TC Chair Section 1 Meeting Sunday 6/25/17 – Long Beach, CA Notes of significance to TC 1.2 Instruments and Measurements

Main Points:

- Hightower Award recipient is Paul Lindahl with TC 3.6 & 8.6
- Service to ASHRAE Research Award recipient is Joseph Huber TC 1.3
- ASHRAE members now have access to ASHRAE's Science and Technology for the Built Environment. Available through the <u>ASHRAE.org</u> website.
- ASHRAE Technology Portal is now available. Journal articles and research reports. Visit <u>technologyportal.ashrae.org</u>.
- Looking for feedback on TC website template. Draft minutes are encouraged to be place on the TC site as long as it is very clear that they are Draft versions.
- New restructured TC MOP was approved in Las Vegas and is now online.
- Roster updates needed by Tuesday night to Section Head.
- Lengthy discussion with CEC liaison about programs (there are a lot of holes in the submission packages to CEC, responsibility of presenter and session chair), missing TC numbers (this was a mistake and measures will be taken to ensure it does not happen again), 3 strike rule.
- Standards committees are encouraged to submit definitions to the chair of TC 1.6 Terminology. Also words can be submitted and definitions asked for. Presently there are around 22 definitions for uncertainty. Problem may occur that 1.6 will return a list of definitions but it is responsibility of the standard committee to choose the definition for inclusion in the standard.

5. 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 from the section head meeting. He also brought up the new website capabilities.

6. Membership - Frank Spevak gave the update.

Voting members rolling off as of 6/30/17: Frank Spevak Jim Douglas John Scott

Voting members rolling on as of 7/1/17: Lloyd Le Hongmei Liang

This will bring the voting membership to 7 and 1 non quorum.

As of 7/1/18:

David Yuill: Chairman

Victor Cincola: Vice Chairman Jim Douglas: Secretary/ Standards

Frank Spevak: Research Mike Wegenka: Webmaster Stem Idem: Programs

Voting membership will be:

David Yuill
Steve Idem
Craig Bradshaw – non quorum
Mike Wegenka
Lloyd Le
Hongmei Liang
John Neel
Huojun Yang

Quorum will be sent at 4 (7 members and one non-quorum voting member)

Some attendees had interest in becoming members.

7. Standards - Jim Douglas

Jim gave a report on SSPC 41, SPC23.2 and SPC 23.1R. A written report is included as an Annex B to these minutes.

In addition the topic of Guideline 2 was discussed since it is due for periodic maintenance.

Approximately 7 of the 10 SSPC41 standards refer to ASHRAE Standard Guideline 2 is officially being discontinued by ASHRAE as a reference. This will cause referencing issues for the 41 standards. Rick Hall 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. The Ad Hoc committee met on Sunday, January 29th, and continued their discussion on how to define what should be covered and how the data should be presented. Regardless of the outcome of the Ad Hoc group, Guideline 2 will no longer be allowed to be a reference within any Standard, but can continue to be a Bibliography listing.

At the Las Vegas meeting, the committee voted to revise the Guideline 2 standard. We still need a chairman and some volunteers to submit to ASHRAE.

After a discussion period the committee decided to reverse the decision to revise the document and withdraw it instead. A motion was made by John Neel and seconded it by Mike Wegenka. The vote was passed to withdraw the standard (8,0,01 chair voting). Jim will notify Mark Weber of the action.

8. <u>Handbook - Terry Beck</u>

The committee's handbook section has been completed and submitted to ASHRAE. Terry attended a Handbook Chair's meeting. ASHRAE has introduced an electronic method (Internet Explorer) to look at standards. The link to the method: authoring ashrae.org. The software is a change tracking software to allow historical change to be documented by time and author. This software will eventually will become a requirement to use by Handbook subcommittees.

A new meeting was held on Monday, June 26th from 4 to 6 p.m. A general discussion was held and the group reviewed the new process for the next update session. Terry will be submitting a new spreadsheet to the TC1.2 committee to sign up for the next update work.

9. Research - Frank Spevak

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

1) Terry Beck reviewed a project that was originally tabled at the St. Louis meeting 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. The chairman decided that it would be best to discuss this in more detail at the Long Beach summer meeting. This was the consensus of the committee. A discussion was held at this meeting and the consensus was decided to drop the request at this time.

2) At the Sunday SSPC41 meeting a request for co-sponsoring with TC8.11 an RTAR #1824 for research work to determine the "Barometric Pressure Impacts on Psychrometric Performance testing of Unitary Air-Conditioning and Heat Pump Equipment". After a discussion a motion was made by David Yuill and seconded by Craig Bradshaw. Motion was voted on and passed to co-sponsor (8,0,0,1) chair voting.

10. Programs Subcommittee Chair's report - Steve Idem

Nothing was formally reported.

When the Program committee met they discussed the possibility of sponsoring a program or workshop about "Test Uncertainty Analysis". Frank asked the group if anyone would be interested in giving a paper or chairing the workshop. Two members volunteered to work together for the workshop if we can get it approved (Adam Michaelson and Steve Rogers volunteered) for the 2018 Houston summer meeting. We will ask SSPC41 to co-sponsor. Frank offered to act as chair.

A second idea was discussed about having the sensor and test equipment manufacturers put on a seminar about how sensors actually function and the process of calibration. This will be discussed further in the next meeting.

Third, a discussion about flow measurement technics for capture hoods was brought up. Motion made by Steve Idem and seconded by David Yuill. The committee voted to submit this (8,0,0,1) for approval to be given at the 2018 Chicago winter meeting.

11. 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 committee's information and the website is up to date. There is one item that Mike is addressing with the ASHRAE website group.

12. New/Unfinished business:

Committee thanked Frank for his service as chairman past and present.

13. Adjournment:

Michael Wegenka motioned to adjourn. Meeting concluded at 2:56 PM.

Annex A: Research Report - Frank Spevak

ASHRAE Research Sub-Committee Breakfast Meeting Monday, June 26, 2017, Long Beach, CA

Main points:

Proposals Update

7 RTARs considered by RAC- 1 accepted, 3 accepted with comments, and 3 rejected 11 Work Statements considered – 1 accepted, 7 conditionally accepted, and 3 returned

RAC approved to fund Innovative Research Grant proposal. Not much explained about what kind of project was accepted.

Unsolicited Research Proposal (URP) Update Hold has been removed New procedure established Should meet URP, RTAR and WS criteria Needs RAC approval first and TC approval

Grant in Aid

New procedures that incentives recipients to attend Society meetings Full time graduate student 10-25 \$10,000 grants awarded each year plus option for \$1500 honorarium

10-25 \$10,000 grants awarded each year plus option for \$1500 nonorarium

Award nominations

Seeking nominations for Service to ASHRAE Research Award and the Homer Addams Award for graduate student

Milestone Monitoring

Milestone and task monitoring will go into effect with all new projects.

PMS will be required to report on the status of milestone

Appropriate and timely actions will be taken for the delayed or non-completed milestone

Incoming RAC Chair is seeking suggestions on Technology Transfer. Ways to disseminate outcomes of ASHRAE Research Projects and how to articulate the outcome in plain English.

Annex B - Standards Subcommittee Report - Iim Douglas

SSPC41 met of Sunday, June 25th from 1 to 3 p.m. at the Renaissance Hotel: Broadlind Room. 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.

<u>Subcommittee 41.1, Standard Methods of Temperature Measurement – E.</u> Anderson

Rick Hall announced that the 41.1-2013 revision subcommittee met to review the latest 41.1 working draft on Tuesday, June 27, from 10:00 AM to noon in the Alford Room on the 2nd level of the Renaissance Hotel. Erik Anderson said that the committee was making good progress and they have a goal to have a Public Review draft by the 2018 annual meeting. They also have some changes they want to make in the Annex sections. They had 25 attendees.

<u>Subcommittee 41.2, Standard Methods of Air Velocity and Airflow</u> Measurement – T. Beck

Rick Hall reviewed the status of Standard 41.2. The second 41.2 Publication Public Review (PPR2) concluded on February 6, 2017. There were 11 substantive comments from 3 commenters that have since been resolved. The next step was to prepare a 1st 41.2 Independent Substantive Change (ISC) PPR that incorporates the changes resulting from the resolution comments from 41.2 PPR2. The SSPC 41 voting members approved the 1st 41.2 ISC PPR draft for PPR in a letter ballot that closed on June 9th. Note that only the changes to the 41.2 PPR2 draft will be subjected to public review under these circumstances. If there are no substantive comments during planned 41.2 1st ISC PPR, 41.2 will proceed to publication; however, if there is one or more substantive comment during the 41.2 1st ISC PPR, there will be a second 41.2 ISC PPR.

<u>Subcommittee 41.3, Standard Methods for Pressure Measurement – D. Collings</u>

The first meeting of the 41.3-2014R revision subcommittee was be held on Sunday, June 25 from 10:00 AM to noon in the Broadlind Room on the 2nd floor of the Renaissance Hotel. Progress was made and action items were assigned.

<u>Subcommittee 41.4, Standard Methods for Measurement of Proportion for Lubricant in Liquid Refrigerant – J. Douglas</u>

The first meeting of the 41.4-2015R revision subcommittee met on Monday, June 26 from 4:15 to 6:15 PM in Alford Room on the 2^{nd} level of the Renaissance Hotel. Progress was made on the standard but the committee reached a consensus that the equipment needed to perform the test needed more work. An adhoc committee was formed to resolve this issue and will schedule an interim meeting in September.

Subcommittee 41.6, Standard Methods for Humidity Measurement – M. Shows

The first meeting of the 41.6-2014R revision subcommittee was held on Monday, June 26 from 10:00 AM to noon in the Alford Room on the 2nd floor of the Renaissance Hotel. Action items were given out.

<u>Subcommittee 41.7, Standard Methods for Gas Flow Measurement – J. Scott</u>

41.7-2015 will be due for periodic maintenance in January 2018. No meeting was scheduled at the summer meeting.

<u>Subcommittee 41.8, Standard Methods for Liquid Flow Measurement - J. Scott</u>

41.8-2016 will be due for periodic maintenance in January 2019. No meeting was scheduled for the summer meeting.

<u>Subcommittee 41.9, Standard Methods for Refrigerant Mass Flow</u> <u>Measurement Using Calorimeters – M. Perevozchikov</u>

In May, a SSPC 41 letter ballot to approve the first 41.9 PPR draft failed because a majority of SSPC 41 voting members did not vote. Consequently, the 41.9 Subcommittee will hold monthly interim meetings beginning in August until they reach consensus on a revised first 41.9 PPR draft. Michael Perevozchikov encouraged members to bring review concerns to the meeting so that revisions can be made before the standard is submitted for public review.

<u>Subcommittee 41.10, Standard Methods for Refrigerant Mass Flow</u> <u>Measurement Using Flowmeters</u> – J. Neel

The 41.10-2013R revision subcommittee met to review the latest working draft on Tuesday, June 27th from 8:00 to 10:00 am in Alford Room on the 2^{nd} level of the Renaissance Hotel. Progress was made with a consensus that some of the definitions needed to be worked on about the stability of the test and action items were assigned.

<u>Subcommittee 41.11, Standard Methods for Power Measurement – M. Todd</u>

The first meeting of the 41.11-2014R revision subcommittee was held on Monday, June 26 from 2:15 to 4:15 PM in Alford Room on the 2^{nd} level of the Renaissance Hotel. Progress was made and action items were assigned. Working at a publication date of 2019.

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 has sent out the PPR1 draft for review. No meeting was scheduled for the Long Beach meeting but due comments on the PPR1 draft (which was passed) an interim meeting has been scheduled for July 17th to amend the PPR draft before sending it to ASHRAE.

<u>Subcommittee SPC23.2-2014</u>, *Methods of Test for Rating the Performance of Positive Displacement Compressors that Operate at Supercritical Pressures of the Refrigerants* Standard will be up for period maintenance in 2017 and TC8.1 will be responsible for the update.

Guideline 2-2010 (RA 2014)

Guideline 2 is up for maintenance 2017. This guideline does not meet the mandatory language issue so it will be necessary to revise this standard. The TC1.02 is voted on this subject to revise the guideline. Volunteers were requested to help with the revision process. Volunteers were: A chairman will need to be found.