

PRELIMINARY AGENDA

SSPC 41 Standard Methods for Measurements 1:00 PM to 3:00 PM Eastern Time Magnolia Room on Floor M2 in North Tower of the Omni Hotel

Atlanta, GA
January 13, 2019

1. Call to order / Introductions / Establish quorum (20 PCVMs) – R. Hall / J. Douglas
2. ASHRAE Code of Ethics
All discussions must comply with ASHRAE's Code of Ethics (Annex A)
3. Liaison Report – Karl Peterman, SPLS
4. Announcements – R. Hall/M. Shows
5. Review and Approval of the Houston Meeting Minutes (Annex B) – R. Hall
6. Membership and Voting – R. Hall

Effective 2/1/19, Jim Lutz will be a voting member of this committee and the 41.13 Subcommittee Chair, *Standard Methods of Fuel Heating Value Measurements*. New membership applications for this committee and/or for any of the 41-series subcommittees are always welcomed.

7. Subcommittee Chair's Reports:

Ad Hoc Committee – Steady-State Criteria – R. Hall

Terry Beck recognized that the steady-state criterion that we have been using in all of the published 41-series standards does not work when the measured quantity is near zero. Consequently, this ad hoc committee was formed at Houston, and has been working to develop at least 2 optional steady-state criteria methods for determining that steady-state operation has been achieved to satisfy the needs of all of the 41-series standards except for 41.4, which is a laboratory procedure.

Prior to the Atlanta conference, the ad hoc committee is expected to reach consensus on 2 or more optional steady-state criteria methods that will meet the needs (including clarity and practicality) for each of the 41-series standards except for 41.4. An overview of these methods will be included in an annex of the final version of this agenda. The final version of this agenda will be distributed at least a week prior to our meeting in Atlanta. A brief overview of each of the new steady-state criteria methods will be presented after all remaining SSPC 41 agenda items have been completed.

The SSPC 41 voting members will not be asked to approve (or disapprove) the new criteria methods at Atlanta. Instead, each 41-series revision subcommittee will review and potentially revise the new criteria as part of their efforts to reach consensus on their first

Publication Public Review (PPR) draft, and then the SSPC 41 voting membership will vote to recommend that ASHRAE Standards Committee approve each PPR draft.

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

41.1-2013R revision subcommittee will meet to review the latest working draft on Tuesday, January 15, from 10:00 AM to noon in the Cyprus room on the M2 floor of the north tower in the Omni. The present goal is to reach consensus on the first PPR draft at the 2019 summer conference.

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

ASHRAE has published the 41.2-2018 and the revision subcommittee has been dissolved. This standard will be up for periodic maintenance at the 2021 winter conference.

Subcommittee 41.3, *Standard Methods for Pressure Measurement* – D. Collings

41.3-2014R revision subcommittee met this morning (Sunday, 1/13/19) and reviewed the latest working draft. The present goal is to reach consensus on the first PPR draft at the 2020 winter conference.

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

41.4-2015R revision subcommittee will meet to review the latest working draft on Monday, January 14, from 4:15 to 6:15 PM in the Cottonwood A room on the M1 floor of the north tower in the Omni. The present goal is to reach consensus on the first PPR draft at the 2021 summer conference.

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

41.6-2014R revision subcommittee will meet to review the latest working draft on Monday, January 14, from 10:00 AM to noon in the Cottonwood A room on the M1 floor of the north tower in the Omni. The present goal is to reach consensus on the first PPR draft at the 2020 summer conference.

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

41.7-2015 (RA 2018) has been reaffirmed. This standard will be up for periodic maintenance at the 2021 winter conference.

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

41.8-2016 is due for periodic maintenance. Consequently, SSPC 41 is being asked to vote to Reaffirm, Revise, or Withdraw this standard. John Scott recommends Reaffirmation because:

- All of the references are still current or can be updated during reaffirmation.
- This standard is technically correct.
- This standard meets ASHRAE's mandatory language requirements.

Motion: *SSPC 41 recommends that ASHRAE Standards Committee Reaffirm 41.8-2016.*

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

ASHRAE has published the 41.9-2018 and the revision subcommittee has been dissolved. This standard will be up for periodic maintenance at the 2021 winter conference.

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

41.10-2013 revision subcommittee will meet to review the latest working draft on Tuesday, January 15, from 8:00 to 10:00 AM in the Cyprus room on the M2 floor of the north tower in the Omni. The present goal is to reach consensus on the first PPR draft at the 2020 winter conference.

Subcommittee 41.11, *Standard Methods for Power Measurement* – M. Todd

41.11-2014R revision subcommittee will meet to review the latest working draft on Monday, January 14, from 2:15 to 4:15 PM in the Cottonwood A room on the M1 floor of the north tower in the Omni. The present goal is to reach consensus on the first PPR draft at the 2020 winter conference.

Subcommittee 41.13, *Standard Methods for Fuel Heat Value Measurement* – J. Lutz

ASHRAE Standards Committee authorized this new standards subcommittee, 41.13P, last September. This subcommittee will meet to review the first working draft on Monday, January 14, from 8:00 to 10:00 AM. The present goal is to reach consensus on the first PPR draft at the 2022 summer conference.

8. Website Status Report – E. Anderson

Website located at <http://sspc41.ashraepcs.org>

Rick Hall will send the “members only” portion password to all SSPC 41 voting members and all Subcommittee voting members prior to the Atlanta conference.

9. Research Subcommittee Chair's Report – R. Hall

The Research committee doesn't meet until Monday morning. If someone forwards a summary of Research committee's minutes, I will include it in an annex to the SSPC 41 Meeting Minutes.

10. 2019 Summer Conference Meeting Room Requests – R. Hall

- a. SSPC 41: Sunday, 1:00 to 3:00 pm (21 members/10 guests, laptop electric requested)
- b. 41.1: Tuesday, 10:00 am to Noon (15 members/10 guests, Screen and laptop electric requested)
- c. 41.2: No meeting required
- d. 41.3: Sunday, 10:00 am to Noon (15 members/5 guests, Screen and laptop electric requested)
- e. 41.4: Monday, 4:15 to 6:15 PM (7 members, 4 guests, Screen and laptop electric requested)
- f. 41.6: Monday, 10:00 am to Noon (15 members/8 guests, Screen and laptop electric requested)
- g. 41.7: No meeting required
- h. 41.8: No meeting required
- i. 41.9: No meeting required
- j. 41.10: Tuesday, 8:00 to 10:00 am (15 members/10 guests, Screen and laptop electric requested)
- k. 41.11: Monday, 2:15 pm to 4:15 pm (15 members/5 guests, Screen and laptop electric requested)
- l. 41.13: Monday, 8:00 am to 10:00 am (10 members, 5 guests, Screen and laptop electric requested)

11. New Business

12. Adjourn

Attendees:

Name	Affiliation	Email Address	Status
Rick Hall	Hall Consultants, LLC	rhall.1492@gmail.com	PCVM
Brandon Kelley	AAON	BWKelley34@gmail.com	PCVM
Jim Douglas	Imagineering and More	jim.douglas.imagineering@gmail.com	PCVM
Erik Anderson	Anderson Engineering	eanderson@aenpi.com	PCVM
Terry Beck	Kansas State University	tbeck@ksu.edu	PCVM
Mark Kedzierski	NIST	mark.kedzierski@nist.gov	PCVM
Hongmei Liang	Carrier	hongmei.liang@carrier.utc.com	PCVM
Adam Michaelson	Montana State University	adam.michaelson@eca.montana.edu	PCVM
Michael Perevozchikov	Emerson Climate Technologies	michael.perevozchikov@emerson.com	PCVM
Frank Spevak	Energy Conservatory	fspevak@energyconservatory.com	PCVM
Christopher Stone	AHRI	cstone@ahrinet.org	PCVM
John Scott	Natural Resources Canada	john.scott@canada.ca	PCVM
Orkan Kurtulus	Purdue University Herrick Labs	orkan@purdue.edu	PCVM
Michael Scott Creamer	Rheem Mfg	scott.creamer@rheem.com	PCVM
Michael Shows	Intertek	michael.shows@intertek.com	PCVM
Russell Tipton	Vertiv	russell.tipton@vertivco.com	PCVM
Jim Lutz	HWR	jdutz@hotwaterresearch.net	Visitor
Andrew Moore	Mitsubishi Electric	amoore@hvac.mea.com	Visitor
Julie Eagle	Ingersoll Rand	julie.eagle@irco.com	Visitor
Darryl Denton	Ingersoll Rand	darryl.denton@irco.com	Visitor
T J Farrell	Intertek	terrence.farrell@intertek.com	Visitor
Stephen Wage	Intertek	Stephen.wage@intertek.com	Visitor
Patrick Collins	Johnson Controls	patrick.collins@jci.com	Visitor

Clint Finsted	FBD Partnership	cfinsted@fbdfrozen.com	Visitor
Chad Higgins	Krueger	chiggins@krueger-hvac.com	Visitor
	PCVM = Project Committee Voting Member PSVM = Project Subcommittee Voting Member Liaison = ASHRAE Standards Committee Liaison		

ANNEX A

ASHRAE CODE OF ETHICS

“As members of ASHRAE or participants in ASHRAE committees, we pledge to act with honesty, fairness, courtesy, competence, integrity and respect for others in our conduct.

A. Efforts of the Society, its members, and its bodies shall be directed at all times to enhancing the public health, safety and welfare.

B. Members and organized bodies of the Society shall be good stewards of the world’s resources including energy, natural, human and financial resources.

C. Our products and services shall be offered only in areas where our competence and expertise can satisfy the public need.

D. We shall act with care and competence in all activities, using and developing up-to-date knowledge and skills.

E. We shall avoid real or perceived conflicts of interest whenever possible, and disclose them to affected parties when they do exist.

F. The confidentiality of business affairs, proprietary information, intellectual property, procedures, and restricted Society discussions and materials shall be respected.

G. Each member is expected and encouraged to be committed to the code of ethics of his or her own professional or trade association in their nation and area of work.

H. Activities crossing national and cultural boundaries shall respect the ethical codes of the seat of the principal activity.”

ANNEX B

UNAPPROVED MEETING MINUTES FROM OUR LAST MEETING

**MINUTES
DRAFT MEETING MINUTES**

**SSPC 41 Standard Methods for Measurements
1:00 PM to 3:00 PM Central Time
Room 339AB, Hilton Hotel**

**Houston, Texas
June 23, 2018**

13. Call to order / Introductions / Establish quorum (21 PCVMs) – R. Hall / J. Douglas

Quorum was established at 16 present- 5 absent of the voting membership.

14. ASHRAE Code of Ethics

All discussions must comply with ASHRAE's Code of Ethics (Annex A)

15. Liaison Report – Karl Peterman, SPLS

16. Announcements – R. Hall

Adam Michalson and Chris Stone are the speakers at Seminar 49, *Uncertainty Analysis for Methods of Measurement and Test*, on Tuesday from 9:45 to 10:45 AM in Hilton room 371DE. Jim Lutz took the initiative to propose this program.

17. Review and Approval of the Chicago Meeting Minutes (Annex B) – R. Hall

Motion was made by Frank Spevak and seconded by John Scott to accept the minutes. Vote was (16-0-0-5) [yes, no, abstain, absent]

18. Membership and Voting – R. Hall

Effective July 1, 2018, the following SSPC 41 members have been reappointed for 4 more years: Terry Beck, Jim Douglas, Margaret Mathison, John Neel, and John Scott.

Hongmei Liang and Frank Spevak did not send their paperwork in time to be reappointed but will be able to reapply in early July.

19. Subcommittee Chair's Reports:

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

41.1-2013 revision subcommittee will meet to review the latest working draft on Tuesday, June 26, from 10:00 AM to noon in room 342 on the 3rd floor of the Hilton. Eric reported that the draft is progressing and he is expecting inputs from the membership.

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

ASHRAE has published the 41.2-2018 standard and it was available in the bookstore at this meeting. This is a major accomplishment – the previous version was published in 1989 and the new version includes air velocity measurements in addition to airflow measurements.

Subcommittee 41.3, *Standard Methods for Pressure Measurement* – D. Collings

41.3-2014R revision subcommittee met earlier today and reviewed the latest working draft. Progress was made through the normative section. The uncertainty examples will consist of a pressure sensor example and a pressure sensor with data acquisition example.

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

41.4-2015R revision subcommittee will meet to review the latest working draft on Monday, June 25, from 4:15 to 6:15 PM in room 342 on the 3rd floor of the Hilton. Jim reported that the committee is making good progress. New members and guests are always welcomed.

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

41.6-2014R revision subcommittee will meet to review the latest working draft on Monday, June 25th, from 10:00 AM to noon in room 342 on the 3rd floor of the Hilton. Michael reported that the committee is making good progress. New members and guests are always welcomed.

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

41.7-2015 (RA 2018) has been reaffirmed.

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

41.8-2016 will be due for periodic maintenance in January 2019.

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

There were no public review comments during the first 41.9 Publication Public Review (March 16, 2018 to April 30, 2018) so ASHRAE staff will proceed with the publication of 41.9-2018. Michael has approved the galley proofs for the final publication process.

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

41.10-2013 revision subcommittee will meet to review the latest working draft on Tuesday, June 26th, from 8:00 AM to 10:00 AM in room 342 on the 3rd floor of the

Hilton. John reported that the committee is making good progress. New members and guests are always welcomed.

Subcommittee 41.11, Standard Methods for Power Measurement – M. Todd

41.11-2014R revision subcommittee will meet to review the latest working draft on Monday, June 25th, from 2:15 to 4:15 PM. Mike reported that the committee is making good progress. New members and guests are always welcomed.

20. Research Subcommittee Chair's Report – F. Spevak

- a. The Research committee doesn't meet until Monday morning. Frank submitted a report that has been added as Annex B to these minutes.
- b. RTAR 1824 was approved by ASHRAE, so the next step is to prepare the work statement.

21. Website Status Report – E. Anderson

Website located at <http://sspc41.ashraepcs.org>

Rick Hall will send the "members only" portion password to all SSPC 41 voting members and all Subcommittee voting members by September 30th.

22. 2019 Winter Meeting Schedule – R. Hall

- a. SSPC 41: Sunday, 1:00 to 3:00 pm (21 members/10 guests, laptop electric requested)
- b. 41.1: Tuesday, 10:00 am to Noon (15 members/10 guests, Screen and laptop electric requested)
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- k. 41.11: Monday, 2:15 pm to 4:15 pm (15 members/5 guests, Screen and laptop electric requested)
- l. 41.13: Monday, 8:00 am to 10:00 am (10 members, 5 guests, Screen and laptop electric requested)

23. New Business

Potential proposal for new standard – on behalf of Jim Lutz, Rick Hall drafted a proposed Title, Purpose, and Scope for 41.13P, *Standard Methods for Fuel Heating Value Measurements*, that, like 41.11, would rely heavily on referenced documents. The SSPC41 voted to establish this new standard. Motion to approve the new standard made by Jim Douglas and seconded by Hongmei Liang. Vote passed 15-0-0-5 CNV.

Committee had a second motion to nominate Jim Lutz as revision subcommittee chair. Motion made by Jim Douglas and second by Hongmei Liang. Vote passed 15-0-0-5 CNV.

Rick Hall will send out a continuation letter ballot to give the absent SSPC 41 voting members an opportunity to vote on both of these motions. After that, Rick will then submit the completed ASHRAE form to propose this new standard.

After the vote, the following people volunteered to serve on the new 41.13P subcommittee: Chris Stone, Judd Smith, Paul Glanville, Mark Kedzierski, Brandon Kelly, and Rick Hall.

24. Adjourn

Motion was made by Jim Douglas to adjourn.

Attendees:

Name	Affiliation	Email Address	Status
Rick Hall	Hall Consultants, LLC	rhall.1492@gmail.com	PCVM
Brandon Kelley	AAON	BWKelley34@gmail.com	PCVM
Jim Douglas	Imagineering and More	jim.douglas.imagineering@gmail.com	PCVM
Erik Anderson	Anderson Engineering	eanderson@aenpi.com	PCVM
Terry Beck	Kansas State University	tbeck@ksu.edu	PCVM
Mark Kedzierski	NIST	mark.kedzierski@nist.gov	PCVM
Hongmei Liang	Carrier	hongmei.liang@carrier.utc.com	PCVM
Adam Michaelson	Montana State University	adam.michaelson@eca.montana.edu	PCVM
Michael Perevozchikov	Emerson Climate Technologies	michael.perevozchikov@emerson.com	PCVM
Frank Spevak	Energy Conservatory	fspevak@energyconservatory.com	PCVM
Christopher Stone	AHRI	cstone@ahrinet.org	PCVM
John Scott	Natural Resources Canada	john.scott@canada.ca	PCVM
Orkan Kurtulus	Purdue University Herrick Labs	orkan@purdue.edu	PCVM
Michael Scott Creamer	Rheem Mfg	scott.creamer@rheem.com	PCVM
Michael Shows	Intertek	michael.shows@intertek.com	PCVM
Russell Tipton	Vertiv	russell.tipton@vertivco.com	PCVM
Jim Lutz	HWR	jdLutz@hotwaterresearch.net	Visitor
Andrew Moore	Mitsubishi Electric	amoore@hvac.me.com	Visitor
Julie Eagle	Ingersoll Rand	julie.eagle@irco.com	Visitor
Darryl Denton	Ingersoll Rand	darryl.denton@irco.com	Visitor
T J Farrell	Intertek	terrence.farrell@intertek.com	Visitor
Stephen Wage	Intertek	Stephen.wage@intertek.com	Visitor
Patrick Collins	Johnson Controls	patrick.collins@jci.com	Visitor
Clint Finsted	FBD Partnership	cfinsted@fbdfrozen.com	Visitor
Chad Higgins	Krueger	chiggins@krueger-hvac.com	Visitor
	PCVM = Project Committee Voting Member PSVM = Project Subcommittee Voting Member Liaison = ASHRAE Standards Committee Liaison		

ANNEX A

ASHRAE CODE OF ETHICS

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C. Our products and services shall be offered only in areas where our competence and expertise can satisfy the public need.

D. We shall act with care and competence in all activities, using and developing up-to-date knowledge and skills.

E. We shall avoid real or perceived conflicts of interest whenever possible, and disclose them to affected parties when they do exist.

F. The confidentiality of business affairs, proprietary information, intellectual property, procedures, and restricted Society discussions and materials shall be respected.

G. Each member is expected and encouraged to be committed to the code of ethics of his or her own professional or trade association in their nation and area of work.

H. Activities crossing national and cultural boundaries shall respect the ethical codes of the seat of the principal activity.”

ANNEX B

UNAPPROVED MEETING MINUTES FROM OUR LAST MEETING

MINUTES

ASHRAE SSPC 41 – Standard Methods for Measurements Winter ASHRAE Conference – Chicago, IL

1:00 to 3:00 pm, January 21, 2018

Clark 3, 7th Floor

Palmer House Hotel

- 1 Call to order / Introductions / Establish quorum (20 PCVMs) – R. Hall / J. Douglas
Quorum was established with 18 of 20 voting members present at the beginning of the meeting.
- 2 Liaison Report – Karl Peterman, SPLS
- 3 Announcements / Report from PC Chair’s Breakfast – R. Hall
 - Recommended that all chairs view a 12-minute anti-trust training session located on the ASHRAE website.
 - New version of the on-line comment database will replace the present version on the ASHRAE site in a few months.
- 4 Approved the Long Beach Meeting Minutes (Annex A) – R. Hall
Motion to accept the Long Beach minutes passed (17-0-1-2) [yes, no, abstain, absent]
- 5 Membership and Voting – R. Hall
Welcome new members – ASHRAE Standards Committee approved two proposed new members yesterday (January 20, 2018) – Adam Michalson will become a SSPC 41 voting member, and Scott Young will become an SSPC 41 Consultant when the next SSPC 41 roster is distributed. Additionally, Brandon Kelley and Chris Lesnar became new SSPC 41 voting members since the ASHRAE Conference in Long Beach last summer. Let’s welcome these 4 new members.
- 6 Subcommittee Chair’s Reports:
Subcommittee 41.1, *Standard Methods of Temperature Measurement* – E. Anderson
41.1-2013 revision subcommittee will meet to review the latest working draft on Tuesday, January 23rd, from 10:00 AM to noon in Clark 10 on the 7th floor of the Palmer House. The proposed 41.1 Title, Purpose, and Scope (TPS) changes were approved by the ASHRAE Standards Committee yesterday (January 20, 2018). New members and guests are always welcomed.

Subcommittee 41.2, *Standard Methods of Air Velocity and Airflow Measurement* – T. Beck
The third 41.2 ISC PPR began on November 10, 2017 and concluded on December 25, 2017. There were no public review comments from the third 41.2 ISC PPR, so

ASHRAE staff will proceed with the publication of Standard 41.2-2018. This new version is a significant update of the previous version, and now includes air velocity measurements in addition to airflow measurements.

Subcommittee 41.3, *Standard Methods for Pressure Measurement* – D. Collings

41.3-2014R revision subcommittee met earlier today to review the latest working draft with progress being made on the first half of the standard. Action assignments were assigned. New members and guests are always welcomed.

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

41.4-2015R revision subcommittee will meet to review the latest working draft on Monday, January 22nd, from 4:15 to 6:15 PM in Clark 10 on the 7th floor of the Palmer House. New members and guests are always welcomed.

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

41.6-2014R revision subcommittee will meet to review the latest working draft on Monday, January 22nd, from 10:00 AM to noon in Clark 10 on the 7th floor of the Palmer House. New members and guests are always welcomed.

Note: One SSPC 41 voting member joined the meeting at this point changing the quorum to 19 present and 1 absent.

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

41.7-2015 is due for periodic maintenance. Consequently, SSPC 41 is being asked to vote to Reaffirm, Revise, or Withdraw this standard. John Scott recommends Reaffirmation because:

- All of the references are still current or can be updated during reaffirmation.
- This standard is technically correct.
- This standard meets ASHRAE's mandatory language requirements.

Motion: *SSPC 41 recommends that ASHRAE Standards Committee Reaffirm 41.7-2015.*

Motion to reaffirm was made by John Scott and seconded by Mike Wegenka. Voting results were (18-0-1-1) at the meeting.

Rick Hall will send a continuation letter ballot to the SSPC 41 voting members who were not present at this meeting.

Subcommittee 41.8, Standard Methods for Liquid Flow Measurement – J. Scott
41.8-2016 will be due for periodic maintenance in January 2019.

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

In November, the SSPC 41 voting members approved a letter ballot recommending that the ASHRAE Standards Committee approve the proposed first 41.9 Publication Public Review (PPR) draft for public review. The ASHRAE Standards Committee approved the first 41.9 PPR draft yesterday (January 20, 2018). The public review period will be sometime during the next few months.

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

41.10-2013 revision subcommittee will meet to review the latest working draft on Tuesday, January 23rd, from 8:00 AM to 10:00 AM in Clark 10 on the 7th floor of the Palmer House. The proposed 41.10 Title, Purpose, and Scope (TPS) changes were approved by the ASHRAE Standards Committee yesterday (January 20, 2018). New members and guests are always welcomed.

Subcommittee 41.11, Standard Methods for Power Measurement – M. Todd

41.11-2014R revision subcommittee will be held on Monday, January 22nd, from 2:15 to 4:15 PM in Clark 10 on the 7th floor of the Palmer House. New members and guests are always welcomed.

7 Research Subcommittee Chair's Report – F. Spevak

- a. The Research committee doesn't meet until Monday morning. Frank will submit a report that has been added as Annex A to these minutes.
- b. Chris Stone made the committee aware of an RTAR that is in progress investigating the effect of barometric pressure on humidity measurements, which will affect Standard 41.6. ASHRAE approved the RTAR 1824 and the next step will be to write the work statement which will be voted on by all sponsoring committees.
- c. At the last meeting Mark Kedzierski suggested a project that verifies that lubricants do not evaporate during the evacuation step of Standard 41.4. Since Mark was unable to attend this meeting this request will be tabled until the 2018 summer meeting.

8 Website Status Report – E. Anderson

Website located at <http://sspc41.ashraepcs.org>

Rick Hall will send the password to all SSPC 41 voting members and all Subcommittee voting members.

9 2018 Annual Meeting Schedule – R. Hall

- a. SSPC 41: Sunday, 1:00 to 3:00 pm (22 members/10 guests, laptop electric requested)

- b. 41.1: Tuesday, 10:00 am to Noon (15 members/5 guests, Screen and laptop electric requested)
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- g. 41.7: No meeting required
- h. 41.8: No meeting required
- i. 41.9: No meeting required
- j. 41.10: Tuesday, 8:00 to 10:00 am (15 members/5 guests, Screen and laptop electric requested)
- k. 41.11: Monday, 2:15 pm to 4:15 pm (15 members/5 guests, Screen and laptop electric requested)

10 New Business

- a. Jim Lutz suggested that it might be useful to create a new 41-series standard regarding fuel value measurement for fuels used in heating systems including natural gas, propane, and fuel oil. Rick will work with Jim to evaluate the potential for a new 41-series standard along these lines.
- b. In an annex to the meeting minutes from our Long Beach meeting, Alex Leyderman recommended the 4 guidelines listed below regarding the content of the new measurement uncertainty examples that are being prepared for each 41-series standard that is being revised. Note that new uncertainty examples for 41-series working drafts are prepared in accordance with ASME PTC 19.1- *Test Uncertainty*. ~~Alex plans to send an uncertainty example that reflects his recommended guidelines to Rick Hall for inclusion as an annex to the SSPC 41 agenda for our next meeting at the ASHRAE Annual Meeting in Houston.~~
 1. *Reveal in full details sources for biased and unbiased errors. This should be the most significant part of analysis. Special attention should be given to instrumentation analysis, especially when differential values (pressure, temperature) are involved.*
 2. *Remove the majority of numerical analysis. What is needed are only entrances for all final formula components and the final result.*
 3. *Where possible, enter detailed references to existing standards and guidebooks related to uncertainty analysis.*
 4. *Please note that sometimes the uncertainty analysis is more significant in volume than the standard itself, and not very informative, but intimidating.*

Alex provided this correction regarding his plans: “I may implement my suggestions in improvement of the uncertainty analysis when the next standard is put for review. I do not see a point in reviewing something that is already approved. This what I’ve agreed to do at the meeting.”

Adjourn

Motion to adjourn by John Scott

ANNEX C: Research Report

Notes from Research Subcommittee Chair Meeting 6/25/18 - Houston, TX

Presentation by RAC chair-

3 Most Important Things of RTAR

- Background
- Research Need
- Benefit to ASHRAE

Most Important Thing of Work Statement

- Milestone Chart

Most Important Committee

- Project Monitoring Committee (PMS)

Most Important Task of PMS

- Milestone Monitoring

At Houston Meeting:

3 RTARs considered – 1 accepted, 1 conditionally accepted, 1 rejected

3 Work Statements considered – All conditionally accepted

1 Innovative Research Grant proposal approved

In general, there are fewer RTARs and WS considered at the Annual and Winter meeting as RAC is now meeting 4 times per year. There does seem to be fewer pieces of research being developed.

Grant in Aid Research Awards application deadline is March 1

Service to ASHRAE Research Award nomination deadline is September 30

Homer Adams Award nominations deadline is December 3

New Investigator Award nomination deadline is December 3

PMS training webinar will be held in the fall prior to the Winter meeting

Disposition of ASHRAE Research form is required after research is completed and submitted to MORTS

Work is in progress to make research more accessible to wider audience. Asking that a “Plain English Abstract” be added to Work Statements

