TC 1.2 – Instruments and Measurements
Meeting Minutes - Main Committee Meeting
1:00 – 3:30 PM, June 30, 2015; Atlanta Hilton

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**Action Items**
None

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**I. Call to order/introductions/establish quorum**
5 of 7 voting members are present.
3 YEA members present.

Attendance:
**VM:** Terry Beck, Frank Spevak, James Schaefer¹, David Yuill, Jim Douglas.
**CM:** Stephen Wage¹, Connor Hayes, Steve Idem, Hongmei Liang, Craig Bradshaw
**Guests:** Robert Moss, Michelle Patrick, M. Tauha Ali

**II. Review of agenda**

**III. Review and approval of minutes from Seattle meeting**
Motion to approve minutes by Frank Spevak. James Schaefer seconded. Vote: 5-0-0-7.
Motion Passes.

**IV. Liaison reports**
Art Giesler, RAC: Prof. Kato will start as our next RAC liaison. Send research items by email to both Art and Prof. Kato. RL1@ashrae.net will go to Prof. Kato starting on July 2. Art will move to vice chair of RAC.

Nadar Jayaraman ("Jay"), section head, introduced himself.

**V. TC Chair's breakfast – Terry Beck and Frank Spevak**
There was higher percentage of accepted program items. There was emphasis on consulting with track chairs to improve likelihood of program being accepted.

A debate track will be done at the next meeting.

There's an ASHRAE google calendar that can sync with your google calendar.

**VI. Standards – Jim Douglas**

¹ YEA member
Jim gave a report on SSPC 41 and SPC 23.1R. A written report is included as an appendix to these minutes.

**VII. Handbook – Terry Beck**
Approved form must be submitted by May 2016. Terry would like revisions done by the end of 2015 so that we can vote in Orlando. Terry gave the login and password to download the base files for handbook revisions.

It was suggested that to modify the based files, each commenter should comment (with highlighted text that will be replaced) their changes instead of changing the text with tracked changes so that Terry can more easily merge all the changes.

**VIII. Research – Frank Spevak**
Frank gave a report on the research subcommittee chairs’ breakfast. A written report is appended to these minutes in Appendix A.

TC 7.7 – Testing and Balancing wants to develop an RTAR to take flow grid measurements at a laboratory fume hood, duct, filter section and measure with rotative vane, hot wire, pitot tube, etc. to compare. The results from this research could go into standards and handbook. Cosponsors could be 7.7, 1.2, 9.10, 5.3 and 5.1.

**IX. Programs Subcommittee Chair’s report – Steve Idem**
Steve Idem reported that two papers from Science and Technology for the Built Environment from RP-1245 are planned to be included in the program for Orlando.

**X. Membership – Terry Beck**
Terry Beck and David Yuill will roll off on July 1 and Steve Idem will roll on. We will then have 6 voting members.

Three YEA members were present at the meeting.

**XI. Website status report – Frank Spevak**
It’s about a meeting behind. ASHRAE is updating the tools for websites to automate some of it and make it a wysiwyg format instead of html editing.

**XII. New/unfinished business**
None.

**XIII. Adjourned**
Meeting concluded at 3:23 PM
Appendix A: Research Report – Frank Spevak
Research Sub-Committee Meeting

Current activity
61 active projects
$10 million worth of research on-going
Money may be a little tight this fall but should be back to regular level next year

In the last 6 months:
11 projects complete
11 projects approved
13 tentative research projects (TRP) released

At this meeting:
9 Research Topic Acceptance Request (RTAR) received
3 accepted
4 accepted with comments
2 rejected

8 Work Statements (WS) received
4 accepted
1 accepted with comments
1 returned
2 rejected

8 TRP bid packages to evaluate
4 Unsolicited Research Projects under review

Concept of Stage Funding of future research projects
All WS and TRPs must have a milestone chart with associated costs
All proposals should have a chart with the milestones and the actual cost breakdown for each milestone. Payments made at each satisfactory completion of each milestone. This is different than just a payment cycle or a percentage of completion payment. More work needed to make this happen as well as get the contractor aware of the process.

ASHRAE Strategic Plan - 2014
Initiative 5-ASHRAE’s role in the residential sector - will work to increase research in this area

RAC Training
Web based modules on:
RTAR Writing
WS Writing
PES Functions & Responsibilities
PMS Functions & Responsibilities
Target is June 2016

There was a forum held at 11 AM on Monday to provide ASHRAE with a number of suggestions to improve not only the ASHRAE research process but also the dissemination of information after the research has been completed. Hope to see some more information from RAC in the future on the suggestions that were made.
Appendix B – Standards Subcommittee Report – Jim Douglas

Subcommittee 41.1, Pat Collins, Chair, *Standard Methods for Temperature Measurement:

- Pat Collins reported that ASHRAE’s 41.1-2013 has been published and the subcommittee has been disbanded.
- In January 2016, the SSPC-41 project committee will revisit the standard for revision, reaffirmation, or withdrawal.

Subcommittee 41.2, Terry Beck, Chair, *Standard Methods for Air Velocity and Airflow Measurement:

- Terry Beck reported that the committee has a 41.2 working draft.
- An interim meeting was held during the first week of June instead of in our May 4th interim meeting.
- On June 1st, Subcommittee 41.2 reached consensus on a 1st Publication Public Review (PPR1) draft which satisfied ASHRAE Standards Committee’s deadline requirement. Subcommittee 41.2 will not meet at Atlanta or any time in the future - public review comments, if any, will be resolved by an adhoc group selected from the Subcommittee 41.2 membership. The 41.2 PPR1 draft is now undergoing final editing. Following that, a letter ballot will be sent to the SSPC 41 voting members to approve 41.2 PPR1 for public review.

Subcommittee 41.3, Frank Spevak, Chair, *Standard Methods for Pressure Measurement:

- Frank Spevak reported that 41.3-2014 has been published and the subcommittee has been disbanded.
- In 2017, the SSPC-41 project committee will revisit the standard for revision, reaffirmation, or withdrawal.

Subcommittee 41.4, Jim Douglas, Chair, *Standard Methods for Proportion of Lubricant in Liquid Refrigerant Measurement:

- Jim reported that 41.4-2015 has been published.
- In 2018, the SSPC-41 project committee will revisit the standard for revision, reaffirmation, or withdrawal.

Subcommittee 41.6, Pat Collins, Chair, *Standard Methods for Humidity Measurement:

- Pat reported that 41.6-2014 has been published and the subcommittee has been disbanded.
- In 2017, the SSPC-41 project committee will revisit the standard for revision, reaffirmation, or withdrawal.

Subcommittee 41.7, John Scott, Chair, *Standard Method for Measurement of Gas Flow, and
Subcommittee 41.8, John Scott, Chair, *Standard Method for Measurement of Liquid Flow:*

- Rick Hall reported that there were 9 public review comments from the 1st Publication Public Review (PPR1) of 41.7. Those comments were resolved, SSPC 41 voting members approved 41.7 PPR2, and the 2nd public review period is expected to begin in August or September. If there are any substantive (non-editorial) comments to 41.7 PPR2, those comments will be resolved, and a third 41.7 PPR draft will be prepared. Note that the third public review would be limited to just those portions of the standard that contain the resolved comments, not another full public review.
- Rick Hall reported that the 41.8 PPR1 draft is now undergoing final editing. Following that, a letter ballot will be sent to the SSPC 41 voting members to approve 41.8 PPR1 for public review.

Subcommittee 41.9, Michael Perevozchikov, Chair, *Standard Methods for Refrigerant Mass Flow Measurement Using Calorimeters:*

- Michael Perevozchikov reported that the 41.9 revision subcommittee committee met in Atlanta on Sunday, June 28th from 10 am until noon in Room 410 on the 4th floor of the Atlanta Hilton with 5 members present and a second meeting and met on Tuesday, June 30th from 10 am until noon in Room 409 on the 4th floor of the Atlanta Hilton with 4 members present. Revision work is progressing and a least one interim meeting will be held prior to the Orlando meeting. New members are always welcomed. Goal is to have the PPR1 draft by January 2016 but is likely to be moved to the 2016 summer meeting in St. Louis.

Subcommittee 41.10, Rick Hall (formerly Shane Angle), Chair, *Standard Methods for Refrigerant Mass Flow Measurement Using Flowmeters:*

- Rick Hall reported that 41.10-2013 has been published and the subcommittee has been disbanded
- In 2016, the SSPC-41 project committee will revisit the standard for revision, reaffirmation, or withdrawal.

Subcommittee 41.11, Rick Hall, Chair, *Standard Methods for Power Measurement:*

- Rick Hall reported that the standard has been published in 2014 and the Subcommittee 41.11 has been disbanded.
- In 2017, the SSPC-41 project committee will revisit the standard for revision, reaffirmation, or withdrawal.

Subcommittee 41.12, Standard Methods for Uncertainty Analysis – P. Collins

- ASHRAE Standards Committee has approved the 41.12 Title, Purpose, and Scope and the 41.12 membership roster at Atlanta, but Subcommittee 41.12 will not be officially authorized until a few weeks after the Atlanta meeting. This new standard will be used as a reference in other ASHRAE standards as a replacement for Guideline 2 and other guidelines and Handbook references.
Pat Collins had a 41.12 organizational meeting on Monday, June 29th from 10 am until noon in Pavilion 1 on the 2nd floor of the Atlanta Hilton in preparation for the active status of the committee, which officially starts on July 1.

- 10 volunteers at this time but additional volunteers are welcome

**Summary of 41-Series Standards Development – R. Hall**

- Since ASHRAE authorized the formation of SSPC 41 in 2005:
  - 7 standards have been published (41.1, 41.3, 41.4, 41.6, 41.9, 41.10, and 41.11)
  - 1 standard (41.7) is now in a 2nd Publication Public Review
  - 2 standards (41.2 and 41.8) will soon begin a 1st Publication Public Review
  - 1 new standard (41.12) will be authorized at Atlanta

**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 at least one interim meeting planned to be held prior to the winter meeting in Orlando. The proposed date for the PPR1 draft of January 2016 will most likely be moved to the summer meeting in St. Louis 2016.