

**TC 1.2 – Instruments and Measurements: Hybrid
Winter Meeting 2024 –Chicago, Illinois
Meeting Minutes - Main Committee Meeting**

1:00 – 3:00 PM, January 23, 2024

Location: Marriott and Virtual

Draft Minutes

Attendees

Name	Affiliation	Email Address	Status
Victor Cincola	AccuTrol LLC	cinvic69@icloud.com	Voting
Steve Rogers	The Energy Conservatory	stevebrogers@yahoo.com	Voting
John Scott	Natural Resources Canada.	john.scott@nrcan-mcan.gc.ca	Voting
Hongmei Liang	Carrier Corporation	hongmei.liang@carrier.com	Voting
Jim Douglas	Imagineering and More	jim.douglas.imagineering@gmail.com	Voting
Som Shrestha	Oak Ridge National Lab	shresthass@ornl.gov	Voting
Conner Hayes	Daikin Applied	conner.hayes@daikinapplied.com	Voting
Alex Schmig	Trane	alexander.schmig@trane.com	Voting
Terry Beck	Kansas State University	tbeck@ksu.edu	Voting
Criag Bradshaw	Oklahoma State University	Craig.bradshaw@okstate.edu	Voting
Michael Paul	Accutrol, LLC	mpaul@accutrollic.com	PCM
Forrest Meggers	Princeton University	fmeggers@princeton.edu	PCM
Shilei Ma	Dwyer Instruments	sma@dwyeromega.com	CM
Eric Anderson	Anderson Engineering	eanderson@aenpi.com	CM
David Yuill	University of Nebraska	dyuill@uni.edu	Research
Eric Teitelbaum			Visitor
Joel Pertzsch			Visitor

A. Administrative:

1. Call to order/introductions/establish quorum: Victor Cincola/ Jim Douglas at 1:15 CST

10 of 12 voting members (one non-quorum) were present. Quorum of 7 was established.

0 YEA members present (number established only from attendance list)

Attendance:

VM (Present): Victor Cincola, Hongmei Long, John Scott, Terry Beck, Craig Bradshaw, Som Shrestha, Steve Rogers, Conner Hayes, Alex Schmig, and Jim Douglas

VM (Absent): Steve Idem and Patrick Collins

2. Review of the agenda and ASHRAE Code of Ethics

Victor read the ASHRAE Code of Ethics.

Victor stated that we would follow the past minutes as the agenda and pointed out the scope of the TC1.2 committee.

3. Review and approval of minutes from the Winter 2023 meeting and the Summer 2023 meeting

- The approval of the past minutes could not be done due to the lack of quorum at the Summer 2023 meeting
A motion was made by Craig Bradshaw to approve the 2023 Winter meeting minutes as presented and the motion was seconded by Alex Schmig. Vote was 7,0,1,4. Motion carried (Note that Conner Hayes and Steve Rogers were not present at the time of the voting)
- A motion was made by John Scott to approve the 2023 Summer meeting minutes as presented and the motion was seconded by Alex Schmig. Vote was 8,0,0,4. Motion carried (Note that Conner Hayes and Steve Rogers were not present at the time of the voting)

4. TC Chair's breakfast -Victor Cincola

Notes from TC Chair Section 1 Meeting

Notes of significance to TC 1.2 Instruments and Measurements:

- New standing committee was formed: Globalization of Standards to promote ASHRAE standards in other countries globally
- Net Zero directive to promote reduced carbon emissions
- New standard committee is formed: TC9:13: Outer space
- Alice Pates – Director of Government Affairs will be working with the White House to promote technical understanding about ACHR concepts

5. Liaison reports

Section head – Jason Atkisson attended the meeting and spoke about:

- ASHRAE has changed the name of the MOP to Ref Manual
- ASHRAE will be checking the technical balance of members of committees to insure a balance of input and point of views

Meeting Minutes for TC 1.2 – Instruments and Measurements, Winter 2024 Hybrid Meeting
January 23, 2024

- The Strategic Plan is in place on the ASHRAE Website—members are encouraged to participate in comments

B. Standards – Jim Douglas

Jim reported on the SSPC41 standards. A written report is included as an Annex A to these minutes.

C. Handbook – Terry Beck

Terry gave a report about our responsibility for Handbook Chapter 39 (Old Chapter 38). Last date for submission to update the Handbook is July 31. Terry encouraged members to review and comment to him any additions or changes that would be useful. He will send the Excel spreadsheet on participation that is needed to Victor for redistribution to the membership for review after the meeting. The TC will then vote to approve the changes to the Handbook chapter at the Summer 2024 meeting in Indianapolis.

D. Research – David Yuill

- No new RTARs and no Work Statements from this committee.
- New division of titles for projects: RTAR (Research Topic Acceptance Review) and PTAR (Publication Topic Acceptance Review)
- ASHRAE has had over 1000 research projects funded overall through the years. At this time there are no new projects waiting in the que.
- We have a new Research Chairman: Srinivas Katipamula
- No one applied to receive the Research Award
- Shilei Ma spoke about committee TC7.7 which is in the process of preparing a RTAR and Work Statement addressing a study about flow capture hoods and that they are seeking our committee to co-sponsor. It was decided to table this until the documentation is finished and we will vote on it at the Summer 2024 meeting.
- TRP 1716 was discussed which is a project addressing lubricant flow. Alex suggested that we take a look at what it encompasses as it could relate to SSPC41.4. Suggestion was made to discuss this at the next scheduled SSPC41.4 meeting in approximately 4 to 6 weeks.

David is still requesting that someone else should take over the Research Committee chair position since he has a committee meeting timing conflict.

E. Programs Subcommittee Chair's report – Steve Idem (Not present)

Meeting Minutes for TC 1.2 – Instruments and Measurements, Winter 2024 Hybrid Meeting
January 23, 2024

Possible seminar presentations were discussed.

For Indianapolis: Proposal to submit for a Seminar to discuss the entire SSPC 41 Standards explaining each standard and status. The seminar would explain the new “Steady-state criteria” sections and how the “Uncertainty Section” is formed and give a simple example. It was decided to pursue with Jim Douglas as Chairman and Craig Bradshaw, Terry Beck, and Charles Antone as possible speakers. Other speakers would be welcome to participate.

F. Membership – Victor/ Jim Douglas gave the update.

Voting members rolling off as of 6/30/24:

Craig Bradshaw
Som Shrestha
Steve Rogers

Voting members rolling on as of 7/1/24:

Eric Anderson

This will make the voting membership at 10, creating a quorum level of 6 technically after 7/1/24.

As of 1/23/24:

Victor Cincola: Chairman
Alex Schmig: Vice Chairman
James Douglas: Secretary/ Standards Chairman
David Yuill: Research Chairman (David will continue until a replacement)
Craig Bradshaw: Webmaster
Stem Idem: Programs Chairman
Terry Beck: Handbook Chairman

Voting membership for the 2024 Summer meeting:

Craig Bradshaw – non quorum
Victor Cincola
Steve Idem
John Scott
Steve Rogers
Som Shrestha

Pat Collins
Hongmei Liang
Terry Beck
Alex Schmig
James Douglas
Conner Hayes

Quorum will be set at 7 (11 voting members and one non-quorum voting member)

Attendees were offered the opportunity to become members.

G. Website status report – Craig Bradshaw

Craig Bradshaw reported that the website is up to date with the exception of the past minutes which were not approved to be posted.

H. New/Unfinished business:

No new or old business was presented

I. Adjournment:

John Scott motioned to adjourn with Steve Rogers seconding. Meeting concluded at 3:04 PM CST

Annex A – Standards Subcommittee Report – Jim Douglas

Subcommittee Chair’s Reports:

Subcommittee 41.1, Standard Methods for Temperature Measurement – E. Anderson

Standard 41.1-2020R is in ASHRAE’s queue to be published. Congratulations to Erik Anderson and his subcommittee.

Subcommittee 41.2, Standard Methods for Air Velocity and Airflow Measurement – P. Collins

Standard 41.2-2022 is published. Standard 41.2 2022 will be due for periodic maintenance at the 2025 ASHRAE Winter Conference.

Standard 41.2-2022 Addendum a. revises the steady-state criteria and adds airflow mixing methods, which includes information obtained from a recently completed ASHRAE-sponsored research project.

Standard 41.2-2022 Addendum b. corrects and clarifies the method for determining the inlet air density for single- and multiple-nozzle chambers. The first public review of Subcommittee 41.2-2022 Addendum a. and Addendum b. ended on 12/11/23 and there were no public review comments, so these 2 addenda are now in ASHRAE’s queue to be published onto the ASHRAE website.

Subcommittee 41.3, Standard Methods for Pressure Measurement – R. Hall

Standard 41.3-2022 is published. Standard 41.3-2022 Addendum a. is published onto ASHRAE’s website. Standard 41.3-2022 will be due for periodic maintenance at the 2025 ASHRAE Winter Conference.

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

Subcommittee 41.4-2015R will hold a not-yet-scheduled subcommittee meeting roughly 4 weeks after this SSPC meeting, and will have another Subcommittee 41.4-2015R virtual meeting in March or April. The current goal is for Subcommittee 41.4-2015R to reach consensus on the 1st Publication Public Review Draft before 2024 ASHRAE Annual Conference.

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

Standard 41.6-2021 is published. Standard 41.6-2021 Addendum a. is published onto ASHRAE's website. Standard 41.6-2021 is now due for periodic maintenance. The committee voted to Revise the standard and begin the work early to include the Addendums that are posted on the ASHRAE website.

Volunteer 41.6-2021R Subcommittee Members: Pat C., Scott C., Devendra K., Margaret M., Terry B., and Rick H.

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

Standard 41.7-2021 is published. Standard 41.7-2021 Addendum a. is published onto ASHRAE's website. Standard 41.7-2021 is now due for periodic maintenance. The committee voted to Revise the standard and begin the work early to include the Addendums that are posted on the ASHARE website.

Volunteer 41.7-2021R Subcommittee Members: Jim Douglas, Margret M., Scott C, Michael S, Alex S., Terry B., and Rick H.

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

Standard 41.8-2023 has been published. Congratulations to John Scott and his subcommittee members.

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

Standard 41.9-2021 is published. Standard 41.6-2021 Addendum a. is published onto ASHRAE's website. Standard 41.9-2021 is now due for periodic maintenance. The committee voted to Revise the standard and begin the work early to include the Addendums that are posted on the ASHARE website.

Volunteer 41.9-2021R Subcommittee Members: Pat C, Margaret, Jim D., Alex S., Scott C, Terry B., and Rick H.

Subcommittee 41.10, *Standard Methods for Refrigerant Mass Flow Measurement Using Flowmeters* – P. Collins

Subcommittee 41.10-2020R is in ASHRAE's queue to be published. Congratulations to Pat Collins and his subcommittee.

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

Standard 41.11-2023 is published. Standard 41.11-2023 will be due for periodic maintenance at the 2026 ASHRAE Winter Conference.

Subcommittee 41.13, *Standard Methods for Fuel Higher Heating Value Measurement* – R. Hall

Standard 41.13-2023 is published. Standard 41.13-2023 will be due for periodic maintenance at the 2026 ASHRAE Winter Conference.