



**TECHNOLOGY  
COUNCIL  
Winter Atlanta Meeting  
February 8, 2023**

*NOTE: These are not official minutes until approved by Technology Council.*

## MOTIONS

Technology Council Winter Conference Motions  
February 8, 2023

Motion Number	Motion
<u>1</u>	OPS recommends that Technology Council recommend to the Board of Directors that ROB 2.420.001.1 Membership for Refrigeration Committee, be revised as shown in the OPS Report Motion One.
<u>2</u>	OPS recommends that the Technology Council Manual of Procedures be revised as shown in the OPS Report Motion Two.
<u>3</u>	Technology Council recommends reaffirming the ASHRAE position document (PD) on <i>Energy Efficiency in Buildings Environment</i> until July 2024 as shown in the DRSC Report Attachment 05C-A.
<u>4</u>	Tech Council appoint Charlene Bayer as chair of the Human Health and Wellness in Buildings position document committee (PDC).
<u>5</u>	Proposed changes to the TPS for Standard 100-2018, <i>Energy Efficiency in Existing Buildings</i> , be approved as shown in Standards Committee Report Attachment A.
<u>6</u>	Proposed changes to the TPS for Standard 129- 1997 (RA 2002), <i>Measuring Air-Change Effectiveness</i> , be approved as shown in Standards Committee Report Attachment B.
<u>7</u>	Proposed changes to the TPS for SSPC 189.1-2020, <i>Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings</i> , be approved as shown in Standards Committee Report Attachment C.
<u>8</u>	Proposed TPS for SPC 241P, <i>Standard to Address Mitigation of Airborne Infection Transmission</i> , be approved as shown in Standards Committee Report Attachment D.

**ACTION ITEMS**  
**Technology Council Winter Conference**  
**Wednesday, February 8, 2023**

<b>AI#</b>	<b>Responsibility</b>	<b>Status</b>	<b>Description</b>
<a href="#"><u>1</u></a>	Stephanie Reiniche	New	Post the old and revised Council MOP for review with a spreadsheet for comments. The posting will include post the Society Rules Committee (SRC) MOP template for reference.
<a href="#"><u>2</u></a>	REF-CPCC	New	Add the international members they want to engage into its MOP or Reference Manual.
<a href="#"><u>3</u></a>	Sarah Maston	New	Create a letter addressing the importance of DEI and the direct links.
<a href="#"><u>4</u></a>	Stephanie Reiniche	New	Add a DEI liaison report to future agendas.

**Action Items**  
**Technology Council Fall Virtual Meeting**  
**September 27, 2022**

<b>AI#</b>	<b>Responsibility</b>	<b>Status</b>	<b>Description</b>
1	Council Members	Open	Provide feedback for future strategic plans to Ms. Thomle prior to the Ops meeting in October.

**Action Items**  
**Technology Council Summer Meeting**  
**June 29, 2022**

<b>AI#</b>	<b>Responsibility</b>	<b>Status</b>	<b>Description</b>
1	Tech Council members	Open	Review the proposed PASA and Rules of the Board changes from Standards Committee prior to the Fall OPS meeting and send comments to Staff.

**Action Items**  
**Technology Council Spring Virtual meeting**  
**April 13, 2022**

<b>AI#</b>	<b>Responsibility</b>	<b>Status</b>	<b>Description</b>
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1	None	None	None
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**Minutes**  
Technology Council

<p><b><u>Voting Members Present:</u></b> Sarah Maston, Chair Ashish Rakheja, Vice Chair</p> <p>Adrienne Thomle – OPS Chair Carl Huber Christopher Phelan Costas Balaras David Yashar – Special Projects Chair Larry Smith Paul Francisco Steven Sill Tyler Glesne (online) Wade Conlan Wei Sun (online)</p> <p><b><u>Non-voting Present:</u></b> Bill Bahnfleth -EHC Vice Chair Bill Healy – RBC Chair Chandra Sekhar -RBC Vice Chair Craig Messmer – TAC Chair Dustin Lilya – REF-CPCC Chair Jonathan Humble- StdC Vice Chair Nick Clements – EHC Chair Omar Abdelaziz – RAC Chair Stephen Kujak- REF-CPCC Vice Chair Susanna Hanson – StdC Chair</p>	<p><b><u>Staff</u></b> Stephanie Reiniche, DOT Connor Barbaree, Sr. MOS Steve Hammerling. MOT Tanisha Meyers-Lisle, Proc. Admin. Derrick Nesfield, MOSP Emily Porcari, Manager State and Local Government Affairs Alice Yates, Director of Government Affairs</p> <p><b><u>Guests</u></b> Douglas Fick Arturo Thurdekoos George Pantelidis Alkis Triantafyllopoulos John Constantinide Franco D’Atri James Earley Mark Tome Hailey Brennan Steve Rosenstock Sierra Spitulski</p> <p><b><u>TechC Absent:</u></b> Luke Leung - VM James Bennett – NVM Bill Murphy - NVM</p>
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**1. CALL TO ORDER/OPENING COMMENTS**

Chair Maston called the meeting to order at 9 A.M. EST. The commitment to care, the commitment to the Code of Ethics and the ASHRAE Core Values were shared during the meeting.

*Secretary’s Note: Quorum was met with 13 voting members, including the Chair at the start of the meeting.*

*All reports referenced in the minutes are on Basecamp in the folder "2023-02-08 Atlanta Winter Conference."*

## **2. REVIEW OF AGENDA**

### A. Introductions

All members introduced themselves including guests.

### B. Proposed Changes to Agenda

The agenda was accepted as presented.

### C. NEW! ASHRAE Simplified Rules of Order (Attached at the end of the agenda)

### D. New Technology Council Agenda Format – the new format was highlighted to have items that were strategic in nature at the beginning and then priority given to reports that required actions.

## **3. MINUTES/ACTION ITEMS**

### A. Tech C Fall Meeting Minutes – 03A

It was moved by Christopher Phelan to approve the Technology Council Fall Meeting minutes.

### **MOTION PASSED by Acclamation.**

*Secretary's Note: Corrections needed to be made to Ashish's name prior to posting final notes.*

### B. Action Items – 03B

The action items were updated as shown above in the action item table.

## **4. STRATEGIC DISCUSSION (1 HOUR)**

### A. Streamlining Ad Hoc Presentation – Larry Smith

Larry Smith made a presentation on the proposed new Technology Council Manual of Procedures (MOP). The PowerPoint can be found on Basecamp at TechC Intro to MOP Change\_rev00.pptx. The new Tech Council MOP is now only 6 pages. The MOP will focus on defining what is required of people on Tech Council while the Reference Manual will have all the information of how to do it. Nothing significant has changed from the previous MOP; the intention is the same with information moved around or moved to the Reference Manual. The goal is to bring this forward for Board approval in June 2023.

The Ad Hoc is also working on streamlining the Tech Council Reference

Manual. It will be longer than the MOP and thus be finished in a 6-month timeframe. However, the new Reference Manual will also be shorter than the current Reference Manual, which is thirty-three pages.

Ms. Maston noted that changes to the Tech Council Reference Manual does not have to go to the Board.

Adrienne Thomle suggested bringing the revised MOP and revised Reference Manual to Tech Council at the same time. Wade Conlan suggested expediting the Reference Manual to the Spring Meeting Tech Council meeting and distributing the MOP now for review by Tech Council.

**A1**

An action item was assigned to Stephanie Reiniche to post the old and revised Council MOP for review with a spreadsheet for comments. The posting will include post the Society Rules Committee (SRC) MOP template for reference.

#### B. Presidential Initiatives – Maston

Ms. Maston presented the current presidential initiatives. She noted that not all are relevant to Tech Council. The following were highlighted:

- The Board wants to push decision making down to the lowest level. The first initiative includes making ASHRAE more transparent by sending out agendas to chapters and sending out quarterly newspapers.
- ASHRAE want to encourage greater participation, which includes getting knowledge of what goes on out to international and regional chapters and members. A template is being created so disbursed information is standardized.
- It was also highlighted that Wade Conlan and his committee are putting together the steps for groups who have put together documents they want to publish. They are looking at a 45-day process. Part of the process is to make sure that the documents don't conflict with current ASHRAE products and positions and to ensure that items aren't being plagiarized and permissions are included. Technical Activities (TAC) is also set to be a part of this process.
- Other initiatives include making ASHRAE more diverse, harnessing the power of the ASHRAE relationships, embracing change by streamlining, and raising ASHRAE profile.

*Secretary's Note: The presidential initiatives are posted in Basecamp in the MBOs folder.*

#### C. Presidential-Elect Initiatives – Maston

Ms. Maston indicated that she is part of the President Elect Advisory Committee that works on the theme and initiatives for the incoming President's year. One item that is on the list is the development of a carbon calculator. More

information will be sent regarding the carbon calculator at a later date.

D. Technical Communities – Potential TechC Reorganization, Discussion

This item is on hold regarding further review with TAC.

E. What would you like to see in the Society Strategic Plan in the Future? 3 years? 5 years? 10 years? – Maston

Ms. Thomle indicated that all Committee Chairs were assigned an action item to provide this information to Operations by the end of March.

**5. SUBCOMMITTEE REPORTS**

**A. Operations (OPS)**

Adrienne Thomle, OPS Chair, presented the report. The report is posted on Basecamp as O4A OPS Report to TechC 02 07 2023.docx.

It was moved by Ms. Thomle that:

M1

OPS recommends that Technology Council recommend to the Board of Directors that ROB 2.420.001.1 Membership for Refrigeration Committee, be revised as shown:

**2.420.02 MEMBERSHIP**

2.420.002.1 Composition) (91-01-24-63/99-01-28-80/99-06-24-36/00-02-10-64B/06-01-26-29) The members of this committee are as follows:

A. Twelve (12) Fourteen (14) voting members, including a chair, and a vice chair,

B. Non-voting members include a Board ex-officio member and Coordinating officer.

C. Non-voting members from liaison associations shall be assigned by the Society President as appropriate.

D. Chairs of ASHRAE Committees shall be assigned as non-voting members as appropriate.

**BACKGROUND:** The REF-CPCC has had trouble staffing the new sub committees with chairs due to a limited pool of candidates. The Committee has multiple members representing international organizations as voting members as well as multiple international members. Some members representing international organizations have expressed concerns about chairing the subcommittees. The REF-CPCC committee believes having an expanded pool of candidates will make it easier to appoint subcommittee chairs and enable additional work to be completed by each subcommittee.

**FISCAL IMPACT:** Estimated \$2,000 for transportation reimbursement.

**TechC Vote: 12-0-0 CNV**

**A2** An action item was assigned to REF-CPCC to add the international members they want to engage into its MOP or Reference Manual.

It was moved by Ms. Thomle that:

**M2** OPS recommends that the Technology Council Manual of Procedures be revised as shown below:

A1.2.2 Actions for which the Council acts for the BOD:

- a. Approval of research projects with a total project cost not to exceed \$500,000. (ROB 2.303.006). The Council delegates to RAC approval of research projects with total project cost of \$250,000 \$350,000 or less.
- b. Items which are within existing policy and fiscal limits.
- c. Items that are internal to the Council.
- d. Approval of changes to the Model Research Agreement (RAC MOP – Appendix A) with the concurrence of ASHRAE legal counsel.

**BACKGROUND:** The REF-CPCC has had trouble staffing the new sub committees with chairs due to a limited pool of candidates. The Committee has multiple members representing international organizations as voting members as well as multiple international members. Some members representing international organizations have expressed concerns about chairing the subcommittees. The REF-CPCC committee believes having an expanded pool of candidates will make it easier to appoint subcommittee chairs and enable additional work to be completed by each subcommittee.

**TechC Vote: 11-1<sup>1</sup>-0 CNV**

Adrienne Thomle highlighted the following information items:

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<sup>1</sup> Costas Balaras voted no for the following reason: There are no issues at this stage; the average research projects budget is at \$150k that is well below the threshold. The background information that having a review by the higher body (Tech C) will not get the research projects approved is a concern and should be addressed in a different manner, since it implies misinformation.



1. The Standing Committees are to report any changes they would like to see incorporated in the next Strategic Plan. This is due by March 31, 2023.
2. The DEI liaison to Technology Council announced the new DEI website includes DEI [training](#). It was noted that ASHRAE log-in credentials are required to view the content. There are currently two videos on the site, *DEI Foundations* and *Understanding Implicit Bias in Decision-Making*. Two more videos will be added in May. It is strongly encouraged that all committee members participate in the training.

**A3**

An action item was assigned to Sarah Maston to create a letter addressing the importance of DEI and the direct links.

## **B. Special Projects**

David Yashar, Chair of Special Projects Chair, presented the report. The report is posted on Basecamp as 04B\_SpcProj\_Report\_to\_TechC\_2023\_02\_07.docx. There were no motions presented but the following information items was highlighted:

1. Special Projects Subcommittee reviewed the PTAR Process flowchart. It was agreed that the flow chart would be revised to provide the other publication options available to make it easier for members to determine where to go depending on the project.
2. Special Projects Subcommittee members expressed concern about the lack of engagement by the subcommittee in the development and oversight of the guides being developed under the Task Force on Building Decarbonization. The development of those types of guides have typically been under the oversight of Special Projects.

## **C. Document Review Subcommittee (DRSC)**

Ashish Rakheja, Chair of DRSC Chair, presented the report. The report is posted on Basecamp as 05C-DRSC Rprt to TechC.23W.docx.

It was moved by Mr. Rakheja, and seconded, that:

**M3**

Technology Council recommends reaffirming the ASHRAE position document (PD) on *Energy Efficiency in Buildings Environment* until July 2024.

**TC MOTION 1 PASSED:** 10-0-0 CNV

**BACKGROUND:** The PD is included as **Attachment 05C-A** in the DRSC Report. The TC plans to request a revision but wishes for the current version of the ASHRAE PD to stay on the ASHRAE website until the revision is published. TC 7.6 met after DRSC, so while DRSC did not vote, they did discuss and support reaffirmation of this PD.

**TechC Vote: 12-0-0, CNV**

It was moved by Mr. Rakheja, that:

- M4** Tech Council appoint Charlene Bayer as chair of the Human Health and Wellness in Buildings position document committee (PDC).

**DRSC MOTION 1 PASSED: 6-0-0, CNV**

**BACKGROUND:** This PD was approved for development at the ASHRAE Annual meeting in Toronto. Bayer was involved on the MTG.HWBE and other relevant ASHRAE activities. A list of possible members for the PDC is being discussed by EHC.

**TechC Vote: 11-0-1<sup>2</sup>, CNV**

## **6. STANDING COMMITTEE REPORTS**

### **A. Standards Committee (StdC)**

Susanna Hanson, Chair of Standards Committee, presented the report. The full report can be found on Basecamp as 05AStdC Report to TC Winter Meeting Feb 2023.docx.

It was moved as a consent agenda by Steve Sill and seconded by Costas Balaras, that:

- M5** Proposed changes to the TPS for Standard 100-2018, *Energy Efficiency in Existing Buildings*, be approved as shown in Standards Committee Report Attachment A.

**StdC VOTE: 23-0-0 CNV**

- M6** Proposed changes to the TPS for Standard 129- 1997 (RA 2002), *Measuring Air-Change Effectiveness*, be approved as shown in Standards Committee Report Attachment B.

**StdC VOTE: 23-0-0 CNV**

- M7** Proposed changes to the TPS for SSPC 189.1-2020, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved as shown in Standards Committee Report Attachment C.

**StdC VOTE: 22-0-1<sup>3</sup> CNV**

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<sup>2</sup> Paul Francisco abstained because he thinks the scope is highly flawed.

<sup>3</sup> Jonathan Humble abstained because he is a member of the SSPC.

**M8**

Proposed TPS for SPC 241P, *Standard to Address Mitigation of Airborne Infection Transmission*, be approved as shown in Standards Committee Report Attachment D.

**StdC VOTE:** 23-0-0 CNV

**TechC Vote:** 10-0-2<sup>4</sup>, CNV

Ms. Hanson highlighted the following information items:

1. Standards Committee approved and will recommend that the Board approve the following for publication:
  - a. BSR/ASHRAE/IES Addendum c ANSI/ASHRAE/IES Standard 90.2- *High-Performance Energy Design of Residential Buildings*
  - b. BSR/ASHRAE/ICC/USGBC/IES Addenda v, w, and x ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2020, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*
  - c. BSR/ASHRAE Standard 228-202x, *Standard Method of Evaluating Zero Net Energy and Zero Net Carbon Building Performance*

It was noted that this will be the last set of Standards Committee documents to go before the Board of Directors because the changes to ASHRAE's Procedures for ANSI Standards Actions (PASA) was approved by ANSI on 1/27/23.

2. Proposed Standard 241 – Project 241P had its membership approved by SPLS and its TPS approved by PPIS and Standards Committee. Standards Committee had extensive discussions about the transition to a non-ANSI process and the pros and cons of the change. Dr. Bahnfleth was present and was able to explain the longer-term intent of the proposed document and the tight timeline. There were concerns about the use of a non-ANSI process, but Standards Committee acknowledged that there may be additional process changes to help our standards get to market quicker. It was also noted that the most recent changes to PASA and the supporting documents will greatly help in these efforts.

## **B. Research Administration Committee (RAC)**

Omar Abdelaziz, Chair of RAC, presented the report that is on Basecamp as 06B\_RAC... There were no motions presented. It was noted that the following research projects were awarded:

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<sup>4</sup> Wade Conlan abstained because he is a proposed member of 241P and Costas Balaras abstained because is a member of SSPC 189.1..

1. **1843-TRP**, Validation of Low-Order Acoustic Models of Combustion Driven Oscillations on Fire Tube Water Heaters
2. **1857-TRP**, Improved simplified methodology for describing and calculating heat conduction between buildings and the ground
3. **1890-TRP**, Minimum flow velocities for purging air and debris from hydronic piping systems

#### **C. Technical Activities Committee (TAC)**

Craig Messmer, the Chair of TAC, presented the report that is on Basecamp as 06C-TAC Rprt to TechC.23W.docx. There were no motions presented. The following information item was highlighted:

1. TAC had two members resign and one member has been a no-show. TAC is asking that at least two members be appointed as soon as possible so they can onboard them before Tampa.

#### **D. Environmental Health Committee (EHC)**

Nick Clements, the Chair of EHC, presented the report that is on Basecamp as 06D-EHC Rprt to TechC.23W.docx. No motions were presented. The following information items were highlighted:

1. ASHRAE continues to participate in the IEQ-GA with Corey Metzger as the ASHRAE representative. The IEQ-GA is now finalized as a legal entity and operates with 11 full member organizations (ACGIH, AICARR, AIHA, AIVC, ASA, ASHRAE, FAIAR, FEDECAI, IICRC, ISHRAE, REHVA). The IEQ-GA has held webinars, podcasts and is planning a publication. All are invited to listen and participate.
2. EHC is reviewing Rules Of the Board (ROB)j 1.201.004.9 (B,C,D) and may recommend changes to reduce or eliminate the need for granting waivers for standards related to contaminants, such as infectious aerosols (i.e., SSPC241P), that may not meet the requirements described in the ROB.

#### **E. Refrigeration/CPCC (REF-CPCC)**

Dustin Lilya, the Chair of REF-CPCC, presented the report that is posted on Basecamp as 06E-REF-CPCC\_Rprt\_to\_TechC.W23(1). No motions were presented. The following information items were highlighted:

1. REF-CPCC will continue to support World Refrigeration Day. Request from IOR Stephen Gill to provide ideas for how ASHRAE will support with activities at the annual conference: Theme: *Sustainable Cooling & Heating*.
2. REF-CPCC working on the update of the Bi-Annual Refrigeration

Technology Report for the Annual meeting.

3. REF-CPCC plans to provide a summary report of relevant refrigeration related research projects and TC activities. This report will be sent to local ASHRAE Chapters through CTTC by Mid-March to help facilitate communication and spur interest at the chapter level in REF-CPCC activity. Work is ongoing to identify a new CTTC Liaison to REF-CPCC.

#### **F. Residential Building Committee (RBC)**

Bill Healy, the Chair of RBC, presented the report that is posted on Basecamp as 06F\_RBC\_Report\_to\_TechC\_2023-02-08.docx. No motions were presented. The following information items were highlighted:

1. RBC submitted a report to the Conference and Expositions Committee (CEC) about the [Building XV Conference](#) held on December 3 – 8, 2022. The report detailed what took place at the event and provided recommendations for the next conference.
2. RBC continues to work with CTTC to find ways to outreach to ASHRAE chapters and better understand the needs of the grassroots for residential content. Discussions will be planned with leaders in targeted regions and chapters.

### **7. SPECIAL COMMITTEE/LIAISON REPORTS**

#### **A. Government Affairs Committee (GAC) Liaison Report**

Christopher Phelan, GAC Liaison, presented the report that is posted on Basecamp as 07A GAC Report to Tech Council.docx. Mr. Phelan highlighted that over the next six months, GAC plans to develop a new PPIB on Wildfires and Indoor Environmental Health. GAC has provided resources through Government Outreach Events on building decarbonization, and it looks forward to incorporating the recently released Building Performance Standards guide, as well as additional resources the Task Force on Building Decarbonization (TFBD) will be producing this spring. In addition, the GAC plans to tailor presentations developed by the TFBD so that they are appropriate to government officials, rather than ASHRAE members. Lastly, GAC has held 47 government outreach events and has 19 more scheduled.

**A4**

An action item was assigned to Stephanie Reiniche to add a DEI liaison report to future agendas.

#### **B. Finance Liaison Report**

Ms. Maston reported that finances are solid and reserves are fine. All research money is back in the pipeline. As Tech Council moves toward June and Tampa, budgets need to be considered. Most of the Tech Council budget is tied to

transportation reimbursements. Lastly, Building Energy Quotient is becoming part of Tech Council to better utilize Tech Council's resources.

### **C. Society Planning Liaison Report**

Wade Conlan reported that the planning for the next Society Strategic Plan is starting now. The intent is to develop a three-year plan with a ten-year vision using a less tactical approach. The current Society Strategic Plan has been updated with a change to Initiative 1. Instead of just resiliency, the focus will be on decarbonization with resiliency. Society Planning sent out the annual member satisfaction survey. There was an increase in respondents. There were incentives offered for responding and there was also an increase in the amount responses from of young adults.

### **D. Task Force on Building Decarbonization**

Mrs. Reiniche posted the presentation to the Board of Directors and the presentation shared at the Functional Group Breakfast on basecamp as 07D\_TFBD Updates. It is a high-level review of what the TFBD is doing and updates on the deliverables.

### **8. DOT Report- Reiniche**

Mrs. Reiniche reported that we are fully staffed and there is nothing further to report. The newest members on the staff team in attendance were introduced.

### **9. NEW BUSINESS**

There was no new business to come before the Council.

### **10. EXECUTIVE SESSION**

There was no business for Executive Session.

### **11. NEXT MEETING**

- A. Ms. Maston indicated that a doodle will be sent out for the date of the Tech Council Spring Meeting. Voting members need to be present at the next meeting.
- B. Tech Council will meet on Wednesday, June 28<sup>th</sup>, at the Annual Conference in Tampa, Florida.

### **12. ADJOURN**

The meeting was adjourned at 11:43 am EST