



**TECHNOLOGY COUNCIL**  
Summer Virtual Meeting  
Wednesday, June 23, 2021

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

## MOTIONS

Technology Council Summer Virtual Meeting  
Wednesday, June 23, 2021

Motion	Description
<b>M1</b>	Technology Council approved the minutes of Tech Council's Annual Winter Virtual Meeting, February 2, 2021 and Tech Council's Pre-Summer Virtual Meeting, June 4, 2021
<b>M2</b>	Technology Council recommended that BOD ExCom approve the following five Public Policy Issue Briefs (PPIBs). <ul style="list-style-type: none"> <li>• Climate Change and the Built Environment (Attachment 04C-1)</li> <li>• Environmental Tobacco Smoke (Attachment 04C-2)</li> <li>• Refrigerants and Their Responsible Use (Attachment 04C-3)</li> <li>• Indoor Air Quality (Attachment 04C-4)</li> <li>• Building Energy Benchmarking, Assessments, and Performance Targets (Attachment 04C-5)</li> </ul>
<b>M3</b>	Technology Council recommended that BOD ExCom approve the PPIB titled STEM Education & Workforce (Attachment 04C-6)
<b>M4</b>	Technology Council recommended that BOD ExCom approve the PPIB titled Consensus Standards: Expert Solutions to Meet Global Needs ( <a href="#">Attachment 04C-7</a> )
<b>M5</b>	Technology Council recommended that BOD ExCom approve the PPIB titled Resiliency in the Built Environment ( <a href="#">Attachment 04C-8</a> )
<b>M6</b>	Technology Council recommended the appointment of the following members to the Filtration and Air Cleaning position document (PD) committee: <ul style="list-style-type: none"> <li>• Jeff Siegel, University of Toronto (vice-Chair), past member</li> <li>• Marwa Zaatari, Blue Box Air, (connection to 62.1 and industry)</li> <li>• Kathleen Owen, Owen Air Filtration Consulting, (connection to 2.4, industry)</li> <li>• Paula Levasseur, LMF Services, LLC (connection to 2.3 and industry)</li> <li>• Paolo Tronville, Polytechnic of Turin (connection to RAC 2.3, 2.4 and standardization)</li> <li>• Dean Tompkins, Consultant (connection to 2.3, industry)</li> <li>• Dean Saputa, UV Resources, (connection to 2.9, industry), past member</li> </ul>
<b>M7</b>	Technology Council recommended reaffirming the <i>Limiting Indoor Mold and Dampness in Buildings</i> PD until July 1, 2023
<b>M8</b>	Technology Council recommended reaffirming the Climate Change PD until July 1, 2023

### ACTION ITEMS

Technology Council Fall Virtual Meeting  
November 13, 2020

AI#	Responsibility	Status	Description
1	Reiniche and Hammerling	Ongoing	Work with TAC on moving forward the request for a TAC Functional Group reporting automation tool including a proposed budget.

### ACTION ITEMS

Technology Council Winter Virtual Meeting  
February 2, 2021

AI#	Responsibility	Status	Description
1	DRSC	Ongoing	Conduct a short training session on how PDs travel through the ASHRAE process and provide to cognizant committees.
2	Staff	Ongoing	Request training for DRSC and any member of Tech Council on the PPIB Process from GAC.

### ACTION ITEMS

Technology Council Summer Pre-Virtual Meeting  
Friday, June 4, 2021

AI#	Responsibility	Status	Description
1	Khankari	Complete	Take the feedback on removing systems from the scope to the Infectious Aerosols PDC to confirm that it should be done and if it is editorial.
2	Staff	Complete	Send a copy of the proposed Infectious Aerosols Position Document TPS change to EHC as an information item.
3	McQuade/ McGinn	Complete	Share the following feedback to the proposed Building Decarbonization PDC: 1. Review the purpose and scope alongside other PD purpose and scope to make the format consistent. 2. Ensure that the committee is reviewing the other PDs to avoid overlap, duplication, and conflict.

4	Staff	Complete	Provide Larry Schoen with a copy of the draft Tobacco Smoke PPIB if he hadn't received one.
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**ACTION ITEMS**

Technology Council Summer Virtual Meeting  
Wednesday, June 23, 2021

<b>AI#</b>	<b>Responsibility</b>	<b>Status</b>	<b>Description</b>
1	Staff		Distribute suggested streamlining ideas written by Tim McGinn to facilitate ideas for consideration by the Standing Committees
2	Wilkins		Provide a list of project amounts that may be ready for bid to Staff for distribution.
3	EHC		Determine how ASHRAE and IEQ-GA engage each other including a review of the bylaws of both organizations.

## MINUTES

Technology Council Summer Virtual Meeting  
Wednesday, June 23, 2021

### Voting Members Present

Bill McQuade, Chair  
Tim McGinn, Vice Chair  
Wade Conlan  
Steve Emmerich  
Tyler Glesne  
Krishnan Gowri  
Heather Platt Gulledege  
Rick Hermans  
Jaap Hogeling  
Kishor Khankari  
Wei Sun  
Adrienne Thomle  
David Yashar

### Non-Voting Members Present

Dru Crawley  
Pat Graef  
Rick Heiden  
Richard Karg  
Luke Leung  
Dustin Meredith  
Michael Pouchak  
Larry Smith  
Chris Wilkins

### Absent

Billy Austin - VM  
Stephen Gill  
Yunho Hwang

### Guests

Sarah Maston, Incoming Vice Chair  
Omar Abdelaziz  
Scott Campbell  
Nicholas Clements  
Doug Cochrane  
Bill Dean  
Paul Francisco  
Susanna Hanson  
William Healy  
Dustin Lilya  
Craig Messner  
Chris Phelan

### ASHRAE Staff

Connor Barbaree, Sr. MOS  
Steve Hammerling, AMORTS  
DD Latham, AA  
Jeff Littleton, EVP  
Jeremy Pollack, MFGA  
Emily Porcari, MSLGA  
Lilas Pratt, MSP  
Stephane Reiniche, DOT  
Ryan Shanley, MOIS  
Mike Vaughn, Sr. MORTS  
Alice Yates, DGA

## 1. CALL TO ORDER

Chair, Bill McQuade, called the meeting to order at 9:00 a.m. Vice Chair, Tim McGinn, was asked to record action items. Agenda was accepted as distributed.

*Secretary's Note: Quorum was met with 12 voting members, plus Chair. All reports noted in the minutes can be found on Basecamp listed under [ASHRAE Technology Council/Docs and Files/Meetings 2021/2021\\_06\\_23 TechC Summer Meeting](#)*

## 2. MINUTES/ACTION ITEMS

It was moved by Wei Sun and seconded by Heather Platt Gulledege that:

- M1** The minutes of Tech Council's Annual Winter Virtual Meeting, February 2, 2021 and Tech Council's Pre-Summer Virtual Meeting, June 4, 2021 be approved as distributed.

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

Technology Council Action Items were reviewed and updated. Current Action Items list can be found on Basecamp as [03C ACTION ITEMS as of 2\\_2021](#)

### **3. SUBCOMMITTEE REPORTS**

#### **A. Operations**

Chair, Steve Emmerich, gave an update on OPS activities from the June 22<sup>nd</sup> meeting. There were no motions presented. Full report can be found on Basecamp as [04A OPS Report to TechC 6 23 2021](#)

The Final 2020/21 combined MBO report is complete and is available for review on Basecamp as [ASHRAE/ Docs & Files/MBOs/2020/21 MBOs/06 TechCouncil Combined MBOs 6 22 2021](#)

Next year OPS will be focusing on guiding the Standing Committee Chairs and Vice-Chairs in writing more strategic MBOs. Tech Council leadership is working on creating a training presentation to share with members of OPS and Tech Council. An OPS meeting is scheduled for the last week of July to review the Tech Council and Standing Committee MBOs.

Streamlining efforts at the Society level were discussed and it was noted that the standing committees and Tech Council should begin thinking of ways to streamline activities further. In addition, the subcommittee members were asked to think of activities that could be approved at lower levels to speed up the business of the Society. It was agreed those changes would be looked at after the Board considers the motion regarding the size of the Board of Directors. One item suggested by staff was to revamp the Tech Council subcommittees by merging Special Projects and Document Review Subcommittees. This will be a focus for the next year.

*AI#1 – Staff to distribute suggested streamlining ideas written by Tim McGinn to facilitate ideas for consideration by the Standing Committees*

#### **B. Special Projects**

Chair, David Yashar, presented the Special Projects Committee report. There were no motions presented. The full report can be found on Basecamp as [04B SpcProj Report to TechC 2021 06 22 F](#)

Special Projects Subcommittee discussed the prospects of a new project around the proposal to create a new District Energy Standard supported by Empower. A research project would be needed initially to develop metrics on which the standard could be based. The status of the project is unclear and will be investigated by staff for further consideration by the subcommittee.

Additional discussions with RAC and Publications on the PTAR process were suggested to clarify any remaining ambiguity on roles and responsibilities between RAC, Special Projects Subcommittee and Publications.

While the residential version of the epidemic preparedness document is nearing completion, work on the commercial version has not yet been initiated. Additional discussions are needed to determine if that work is still appropriate and if so, how to proceed.

#### **C. Document Review**

Chair, Tim McGinn, presented the Document Review Subcommittee's report with attachments, which can be found on Basecamp as [04C-DRSC Rprt to TechC.21A](#)

#### **The following motions were presented for Tech Council and ExCom approval.**

It was moved by Tim McGinn that:

- M2** Technology Council recommend to the BOD ExCom that the following five Public Policy Issue Briefs (PPIBs) be approved.
- Climate Change and the Built Environment (Attachment 04C-1)
  - Environmental Tobacco Smoke (Attachment 04C-2)
  - Refrigerants and Their Responsible Use (Attachment 04C-3)
  - Indoor Air Quality (Attachment 04C-4)
  - Building Energy Benchmarking, Assessments, and Performance Targets (Attachment 04C-5)

**BACKGROUND:** These PPIBs were developed and approved by Government Affairs Committee (GAC), then reviewed and approved by DRSC. All five PPIBs can be found on Basecamp.

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

It was moved by Tim McGinn that:

- M3** Technology Council recommend to BOD ExCom that the PPIB titled STEM Education & Workforce (Attachment 04C-6) be approved.

**BACKGROUND:** This PPIB was developed and approved by GAC, then reviewed and approved by DRSC. The negative vote was from DRSC member Adrienne Thomle who suggested the following editorial change be made:

**ASHRAE's ROLE**

...ASHRAE's Board of Directors has committed to promoting diversity, equity, and inclusion in all levels of the society.

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

It was moved by Tim McGinn that:

- M4** Technology Council recommend to BOD ExCom that the PPIB titled Consensus Standards: Expert Solutions to Meet Global Needs (Attachment 04C) be approved.

**BACKGROUND:** This PPIB was developed and approved by GAC, then reviewed and approved by DRSC. The negative vote was from DRSC member Adrienne Thomle who suggested the following editorial change be made:

**ASHRAE's ROLE**

...ASHRAE standards establish recommended practice in the areas of indoor air quality, energy conservation and management, building water and refrigerant systems, high-performance buildings, and others.

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

It was moved by Tim McGinn that:

- M5** Technology Council recommend to BOD ExCom that the PPIB titled Resiliency in the Built Environment (Attachment 04C-8) be approved.

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<sup>1</sup> Adrienne Thomle voted no as the suggested editorial change was not accepted.

<sup>2</sup> Adrienne Thomle voted no as the suggested editorial change was not accepted.

**BACKGROUND:** This PPIB was developed and approved by GAC, then reviewed and approved by DRSC. The negative vote was from DRSC member Adrienne Thomle who suggested the following editorial change be made:

**ASHRAE's VIEW**

...ASHRAE also holds the following positions with respect to resiliency in the built environment:

- Built environments and building systems need to be developed which are both resilient and sustainable.

**Tech Vote:** 11-1<sup>3</sup>-0, CNV

**The following motions were presented for Tech Council approval:**

It was moved by Tim McGinn that:

**M6** Technology Council approve the appointment of the following members to the Filtration and Air Cleaning position document (PD) committee:

Jeff Siegel, University of Toronto (vice-Chair), past member

- Marwa Zaatari, Blue Box Air, (connection to 62.1 and industry)
- Kathleen Owen, Owen Air Filtration Consulting, (connection to 2.4, industry)
- Paula Levasseur, LMF Services, LLC (connection to 2.3 and industry)
- Paolo Tronville, Polytechnic of Turin (connection to RAC 2.3, 2.4 and standardization)
- Dean Tompkins, Consultant (connection to 2.3, industry)
- Dean Saputa, UV Resources, (connection to 2.9, industry), past member

**BACKGROUND:** The PD chair, Pawel Wargocki, was previously appointed. The proposed members represent various fields, outside experts, and relevant ASHRAE committees. ASHRAE bios for ASHRAE members are included as Attachment 04C-9. EHC requested adding a member from the design community as well. They also suggested consideration of a non-voting advisory committee as warranted to help assure interested parties can be involved. EHC expects to recommend adding more members within a few weeks after discussing with the chair.

**Tech Vote:** 11-0-0, CNV

It was moved by Tim McGinn that:

**M7** Technology Council recommend reaffirming the Limiting Indoor Mold and Dampness in Buildings PD until July 1, 2023.

**BACKGROUND:** A revision is underway now, but the current PD (Attachment 04C-10) expires June 27, 2021. Reaffirming the PD would keep this document available until a revision is ready.

**Tech Vote:** 11-0-0, CNV

It was moved by Tim McGinn that:

**M8** Technology Council recommend reaffirming the Climate Change PD until July 1, 2023.

**BACKGROUND:** TC 2.5 intends to initiate a revision shortly, but the current PD (Attachment 04C-11) expires June 27, 2021. Reaffirming the PD would keep this document available until a revision is ready.

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<sup>3</sup> Adrienne Thomle voted no as the suggested editorial change was not accepted.



**Tech Vote:** 11-0-0, CNV

Following the presentation of motions, Rick Hermans commented that the whole PPIB process is cumbersome. Pat Graef did a great job and with a little more streamlining will help with timing and getting approvals. OPS will take this on next year.

#### **4. STANDING COMMITTEE REPORTS**

##### **A. Standards**

Chair, Dru Crawley, presented the Standards report which can be found on Basecamp as [05A StdC Report to TC June 21 2021](#). No motions were presented for Tech Council approval.

Mr. Crawley highlighted the publication items going forward for Board approval and the recently published standards.

Mr. Crawley also provided updates on appeals that were received for proposed addenda *a* and *y* to Standard 62.2-2019, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*, as shown below

1. In the case of addendum *a*, there were multiple appellants. Upon receipt of these appeals, a panel was formed. The panel requested that the chair of the project committee provide a written rebuttal. After reviewing the appeals and the written rebuttal, the panel determined that a hearing would be necessary, and these hearings were held over a two-day span so that all appellants and the chair of the project committee could address the panel. After the hearings the panel determined that all but one of the appeals should be upheld. The panel expressed concern at the dismissal of a compromise proposal and recommended that the committee work towards a compromise with interested parties. The panel also recommended that procedures related to ASHRAE Standards Actions be reviewed and clarified.
2. In the case of addendum *y* there was a single appellant. Upon receipt of the appeal, a panel was formed, and the panel requested that the chair of the project committee provide a written rebuttal. After reviewing the appeal and the information provided in the rebuttal the panel determined that it had the necessary information to dismiss the appeal without a hearing. After this dismissal the appellant has chosen to exercise their right to appeal to the ExSC at ANSI. The processing of the appeal at the ANSI level is in progress and ASHRAE is awaiting more detailed information regarding the appeal. The appellant also requested a stay on the publication of addendum *y* until the appeal process at ANSI has concluded.

##### **B. Research Administration**

Chair, Chris Wilkins, presented an update on RAC activities, no written report was provided. Mr. Wilkins noted that 6 RTARs were acted on during the Summer meeting. RAC will need an additional meeting to act on 5 WS's with 7 additional WS's received. David Yashar stated that 3 PTARs are with publications for review. Concerns were expressed about research funds for the 2025 chapter handbook updates (TC 5.2 was cited). Mr. Wilkins did state that there were funds this Society Year to maintain ongoing projects under contract but there were not funds to approve new projects. It is expected that there will be funds in the upcoming SY, and RAC will prioritize accordingly.

*AI#2 - RAC to provide a list of project amounts that may be ready for bid to Staff for distribution.*

##### **C. Technical Activities**

Chair, Dustin Meredith, reported on TAC activities. No motions were presented. The full TAC report can be found on Basecamp as [05C-TAC Rprt to TechC.21A](#). Mr. Meredith highlighted the following activities:

- TC 2.10, *Resilience and Security* has spearheaded a plan to achieve the Resilient Buildings and Communities Initiative of the ASHRAE Strategic Plan. They've held a series of meetings cumulating in a March roadmap that included short, medium, and long-term goals. Comments were subsequently requested on the plan. The next step is to broaden this initiative to other FGs on TAC and a kickoff meeting is being scheduled to occur soon after the Annual meeting.
- TAC developed a Functional Group (FG) Evaluation workbook to perform both a subjective and objective evaluation of the functional groups under TAC. This was rolled out at the Winter Meeting and will be an annual task. Data from the effort is now available and will serve to help formalize FG continuation procedures. This form is part of a broader effort to improvement management of the FGs under the purview of TAC. TAC also created a new email ([asktac@ashrae.net](mailto:asktac@ashrae.net)) intended to give everyone a direct contact to TAC to respond to all needs and questions.
- TAC approved the formation of a new Task Group entitled Reactive Air and Surface Treatment. This new TG will primarily serve as a home for air cleaning technologies not currently covered by other functional groups including PCO, ionization, and hydrogen peroxide. Specifically excluded is direct UV technology covered by TC 2.9. The first order of business will be to initiate work on a much-needed MOT. TAC will strive to ensure the first roster contains a balance of technologies and member types.
- TAC developed a series of Leadership Training blocks. Developed for use by TC leadership, they are a great resource for all of ASHRAE. TAC is working with ASHRAE to make PDH credits available for those who participate.
- TAC has developed a motion template similar to motions that can be initiated during a regional CRC meeting, to provide a stronger voice for members of FGs. A template was shared with the TCs during the 2021 Annual meeting for the first time.

#### D. Environmental Health

Chair, Wei Sun, presented the EHC Report which is posted to Basecamp as [05D-EHC Rprt to TechC.21A](#). There were no motions presented. Mr. Sun highlighted the following areas:

- EHC has developed and approved a report titled "*Knowledge Gaps in Built Environmental Quality*" ([Attachment 05D-1](#)). This report is the result of surveys and meetings with experts inside and outside of ASHRAE to explore and identify the current knowledge gaps related to built environmental quality.
- EHC has developed and approved a report titled "*EHC Report to ASHRAE Technology Council - Recent Trends in Environmental Health*" to send to Tech Council. ([Attachment 05D-2](#)). This report is prepared in response to an EHC MBO to identify and report on recent trends in the environmental health and its impact on HVAC&R industry.
- ASHRAE continues to participate in the IEQ-GA with Bill Bahnfleth 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). There are two other affiliate associations (MAIQC, SIE).

*AI#3 - EHC to determine how ASHRAE and IEQ-GA engage each other including a review of the bylaws for both organizations.*

## E. Refrigeration CPCC

Wade Conlan presented the REF-CPCC report in the absence of the chair and vice-chair, and it is posted on Basecamp as [05E-REF-CPCC Rprt to TechC.A21\\_Release1](#). No motions were presented. Mr. Conlan highlighted the following areas:

- Based upon a recommendation of the ASHRAE Honors and Awards Committee and the low number of nominations received over the past five years for the Comfort Cooling Award, the Ref-CPCC Awards Subcommittee took on the charge this past fall to combine aspects of the Board dropped Comfort Cooling Award with the current Milt Garland Award. The proposed new award will be called the *Milt Garland Commemorative Refrigeration & Comfort Cooling Award for Project Excellence*. One nomination from the Hong Kong Chapter was considered this year for this new award, but the review subcommittee decided the Hong Kong Chapter project was not particularly unique or innovative, so no award was given this year.
- REF-CPCC took on the charge following the 2021 winter meeting to help develop a news article on the challenges that exist in distributing the Co-VID 19 Vaccines around the world via a global cold chain distribution system. Article working group had kick-off meeting on Friday January 29<sup>th</sup>. A white paper was developed out of this effort over the next couple months as a result and it is now being considered for publication in the ASHRAE Journal.
- ASHRAE is a sponsor of World Refrigeration (WRD) day holding two webinars. ASHRAE is annually supporting WRD thanks to a previously approved motion by the Board of Directors.

## F. Residential

Chair, Pat Graef, presented the RBC Report and it is posted on Basecamp as [05F\\_RBC\\_Report\\_to\\_TechC\\_2021-06-23\\_F1](#). There were no motions presented.

Ms. Graef highlighted that the Residential Buildings Committee approved updates to their Reference Manual to include the new procedures developed under this year's MBOs as reported to Operations Subcommittee (OPS) to Technology Council. In addition, the RBC Manual of Procedures (MOP) was also updated and approved by OPS.

Detailed updates to the initiatives being worked on by the Process Subcommittee and the Communications Subcommittee can be found on Basecamp in the RBC Report.

## 5. SPECIAL COMMITTEE/LIAISON REPORTS

### A. GAC Liaison Report

Steve Emmerich gave a quick overview on the bi-weekly GAC newsletter update and reported that staff does a great job with this publication. Thanks were expressed to DRSC and Tech Council for moving PPIBs forward on a timely basis. There were eight PPIBs this year which are a key tool for members of GAC to use. The public policy priorities for next SY will be sustainable building practices, climate change, healthy buildings, phase down of high GWP refrigerants, getting updated standards into codes, and diversity in the HVACR work force.

GAC thanked the Epidemic Task force for their work. The focus on schools and the guidance was very beneficial and is now being including in policy documents and legislation globally. GAC is glad that Tech Council is moving forward on Decarbonization and approved the development of the decarbonization position document. Bill McQuade thanked Alice Yates and her staff for their hard work.

## **B. Finance Liaison Report**

Bill McQuade reported that the Finance committee is very involved in austerity numbers and the budget, including the decision to advise the Board on virtual meetings based on the cancellation of various conferences. In addition, an ad hoc was created to develop a financial matrix that would help prioritize programs and projects for ASHRAE.

Finance ad hoc is looking at the financial systems that ASHRAE has and whether those systems be used to determine ROI, staff time and volunteer time, that would facilitate more efficient decision making. There are a lot of existing metrics employed when it comes to financial decisions. However, not all ASHRAE projects have a direct financial involvement. Many provide member and society value that don't necessarily make sense on an economic spreadsheet. Therefore, the intent is for the metrics to also focus on areas of non-financial benefit to help rank and rate a project that might not have the normal ROI.

Finance is also looking at the Society reserve funds to determine if another management firm may be better to manage those funds or if there is a different course of action necessary.

## **C. SRC Liaison Report**

Mike Bilderbeck was unable to attend the Tech Council meeting due to a prior commitment for ASHRAE. He sent via email a short update on SRC as follows:

It's an amazing amount of work just evaluating the ROB. It's like editing a several hundred-page Users' Manual. There are 6 of us. We're also reviewing committee MOPs and have created a MOP Template that will soon be distributed. We're differentiated MOPs and Reference Manuals. Today we sent back to ExCom our preference of 3 potential simplified versions of Rules of Order

## **D. Society Planning Liaison Report**

Sarah Maston, incoming Tech Council Vice-Chair, announced that the Society Strategic Plan has been extended one more year due to the past year's pandemic. The Society Planning Committee will be making mid-course corrections with new topics to include items like decarbonization and will be providing updates by the 2022 Winter Meeting in Vegas. Liaisons have been assigned to look at the Society Strategic Plan thru 2030.

During the discussion, a question was asked if whole life cycle of carbon and energy should be moved into the TC structure (perhaps TC 7.4 and TC 7.6)? It was suggested that TAC should look into this.

## **6. DOT REPORT**

Stephanie Reiniche gave a brief update on Technology department activities. ASHRAE continues to be involved in ANSI with multiple staff in voting and non-voting roles. The department has one position that was eliminated last year and one that is still frozen.

## **7. NEW BUSINESS**

A question was asked of the Council; *should the number of members be higher on position document committees and/or should a waiver of the rule be requested?* Comments regarding this question included:

1. Yes, we like the idea of increasing the number of PD members. Five to eight members is good, and Tech Council should have the authority to approve a waiver.

2. In the past, the maximum allowable number had been sufficient and typically will be in the future. It's been one of a few hot topics lately. Mostly under the radar for a long time. I think in the case of Filtration and Air Cleaning position document, the design community representation was missed. Important to add in and probably fit in if thought up front, easier to add then kick someone off.
3. Holes need to be filled and need to waive the rules. Five to eight members is okay if there is a straight-forward position that is well understood and not controversial. If it is a hot and controversial topic, a bigger group might be better option. PDs require a lot of work and/or literature search, so a larger committee has a better chance to get the work done.

## **8. ADJOURN**

Bill McQuade thanked outgoing members for their hard work and continued dedication to ASHRAE this year and presented a short slide presentation highlighting outgoing members. Bill asked everyone to give a short update of what has been happening in their life.

After the members spoke about their activities, the meeting adjourned at 12:10 PM.