



**TECHNOLOGY COUNCIL**  
Orlando Winter Meeting  
Wednesday, February 5, 2020

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

**MOTIONS**  
 Technology Council  
 Orlando Winter Meeting  
 Wednesday, February 5, 2020

Motion	Description
<b>M1</b>	Technology Council approved the Technology Council January 17, 2020 Webinar Minutes as presented.
<b>M2</b>	Technology Council reaffirm the <i>Airborne Infectious Diseases</i> Position Document (PD) for a period of six (6) months.
<b>M3</b>	<p>Technology Council approve and appoint the following members to the <i>Indoor Carbon Dioxide</i> PD Committee:</p> <ul style="list-style-type: none"> <li>• William Bahnfleth - Public</li> <li>• Howard Kipen - General</li> <li>• Josephine Lau - General</li> <li>• Corrine Mandin - Public</li> <li>• Chandra Sekhar - General</li> <li>• Pawel Wargocki - Public</li> <li>• Lan Chi Nguyen Weekes - General</li> </ul>
<b>CM4</b>	It was moved by Art Giesler that motions 1 through 4 of the OPS Report be approved as a consent agenda item.
<b>CM5</b>	It was moved by Art Giesler that motions 5 and 6 of the OPS Report be approved as a consent agenda item.
<b>CM6</b>	It was moved by Art Giesler that Motions 7 through 10 of the OPS Report be approved as a consent agenda item.
<b>M7</b>	Standards Committee recommends that Technology Council recommend to Publishing and Education Council that ASHRAE make all standards accessible over the internet at no cost.
<b>M7A</b>	That the motion be amended to delete “for free” and replace it with “for viewing only”.
<b>CM8</b>	That motions 2 through 20 of the Standards Committee Report be approved as a consent agenda for publication as listed.
<b>M9</b>	Standards Committee recommends that the proposed changes to the Title, Purpose, and Scope (TPS) for SPC 514P, Minimizing Risk of Disease and Injury Associated with Building Water Systems, be approved as shown in Attachment A of the Standards Committee Report posted on Basecamp as <a href="#">STDS RPT ATT A 514.doc</a> .
<b>M10</b>	Standards Committee recommends that the following changes to Standards Committee MOP be approved by Technology Council.
<b>M11</b>	TAC recommends that Technology Council approves changes to TAC MOP which is shown on Basecamp as <a href="#">04C - Att. A - TAC-MOP.W20 - 2.5.2020.docx</a>
<b>M12</b>	EHC recommends that Technology Council recommend to the BOD that SSPC 62.2 addendum a to 62.2-2019 on unvented combustion appliances be approved for publication.

<b>M12A</b>	After a discussion on the publication, it was moved by Dennis Knight and seconded by Van Baxter to postpone the motion until the pre-Austin meeting.
<b>M13</b>	EHC recommends that Technology Council recommends to Publication & Education Council that the <i>Residential IAQ Guide</i> be made available for free download to the public.

**ACTION ITEMS**  
Technology Council  
Orlando Winter Meeting  
Wednesday, February 5, 2020

<b>AI#</b>	<b>Responsibility</b>	<b>Status</b>	<b>Description</b>
1	Staff	Complete	<i>Sarah Maston's Society Planning Liaison Report to be posted on Basecamp for review by Chairs.</i>

**MINUTES**  
Technology Council  
Orlando Winter Meeting  
Wednesday, February 5, 2020

**Voting Members Present**

Dennis Knight, Chair  
Bill McQuade, Vice Chair  
Van Baxter  
Rick Hermans 9:22\*  
Sarah Maston 9:15\*  
Jaap Hogeling  
Trent Hunt 9:20\*  
Steve Emmerich  
Art Giesler  
Billy Austin  
Mike Bilderbeck  
Krishnan Gowri  
Heather Platt Gullede  
Kishor Khankari

**Non-Voting Members Present**

Wayne Stoppelmoor  
Jay Kohler  
Paul Francisco  
Pat Graef  
David Yashar  
Rajan Rajendran  
Dustin Meredith  
Wade Conlan  
Dru Crawley

**Absent**

Chris Wilkins  
Wei Sun  
Yunho Hwang

**Guests**

David [DeLaquila](#)  
Frank Stanonik  
Sarah Toy  
Tim McGinn  
Shawn Nienhuesa

**ASHRAE Staff**

Steve Ferguson, Sr. MOS  
Steve Hammerling, AMORTS  
DD Latham, Admin  
Lilas Pratt, MOSP  
Stephane Reiniche, DOT  
Mike Vaughn, Sr. MORTS  
Alice Yates, DOGA

*\*Time of arrival*

**1. CALL TO ORDER**

Chair, Dennis Knight, called the meeting to order at 9:09 a.m. Vice Chair, Bill McQuade, was asked to record any action items during the meeting. The Chair asked for any changes to the agenda. There being none, the agenda was accepted as presented.

*Secretary's Note: Quorum was met with 10 voting members, plus the Chair. All reports noted in the minutes can be found on Basecamp at [ASHRAE Technology Council/Docs and Files/Meetings/02\\_05\\_2020 TechC Winter Meeting](#)*

**2. MINUTES/ACTION ITEMS**

- M1** It was moved by Heather Platt Gullede and seconded by Jaap Hogeling that the minutes of Technology Council's January 17, 2020 webinar be approved as distributed.

**TechC Vote: 10-0-0, CNV**

Technology Council Action Items were reviewed, updated and can be found on Basecamp listed as [03B ACTION ITEMS as of 1\\_17\\_2020.pdf](#).

*Secretary's Note: At this time the agenda was rearranged to allow the Standing Committee Chairs time to finish their meetings. The Subcommittees presented their reports first.*

**3. SUBCOMMITTEE REPORTS**

**A. SPECIAL PROJECTS**

Van Baxter reported on the activities of the Special Projects subcommittee and highlighted those shown below. There were no motions to bring forward to the Council. The full report can be found on Basecamp listed as [05B\\_SpcProj\\_Report\\_to\\_TechC\\_2020\\_02\\_04\\_F\\_correction.docx](#)

Special Projects Subcommittee is reviewing the Procedures for ASHRAE Special Projects that currently reside in the Technology Council MOP in order to better clarify the procedures and to streamline the information. The subcommittee reviewed a first draft of proposed changes and continued the discussion of those changes on a conference call planned for mid to late February 2020. Proposed changes will be brought forward to Operations Subcommittee once the review has been completed. At this meeting, the subcommittee approved a recommended change to the ROB that was sent to Operations Subcommittee and will be presented as part of that report.

#### Special Project Publications Updates

- SP 142 Smart Grid Application Guide – Publication January 2020
- SP 141 Multifamily Design Guide – Publication Spring 2020
- SP 143 AEDG for Multifamily Buildings: Zero Energy – Publication Summer 2020
- SP 144 Designing for Operational Excellence Guide – Publication Summer 2020
- SP 300 Standard 90.1-2019 User’s Manual – Publication Summer 2020
- SP 302 Standard 62.2-2029 User’s Manual – Publication Fall 2020

*Secretary’s Note: At 9:22 a.m. quorum was increased to 13 voting members, plus the Chair.*

### **B. DOCUMENT REVIEW SUBCOMMITTEE**

Bill McQuade gave a brief update on DRSC activities and presented the two motions below. The full report can be found on Basecamp listed as [05C – DRSC Rprt to TechC 20.W.docx](#).

Bill McQuade moved that:

- M2** Technology Council reaffirm the *Airborne Infectious Diseases* Position Document (PD) for a period of six (6) months.

**BACKGROUND:** This PD is set to expire Jan. 31, 2020. A revision to the PD (newly retitled *Infectious Aerosols*) is underway but requires an additional six months to complete. Revisions include broadening the scope to include not just airborne transmissible infectious diseases, but any pathogen that may be aerosolized. The PD would apply to buildings as well as homes, schools, prisons, shelters, transportation, and other public facilities other than the general ventilation and air quality requirements of Standards 62.1, 62.2 and 170. And while not specifically called out in the PD, emerging infectious pathogens, such as 2019-nCoV, are also covered, as well as recent research findings on the influence of humidity on infectiousness.

**TechC Vote: 13-0-0, CNV**

Bill McQuade moved that:

- M3** Technology Council approve and appoint the following members to the *Indoor Carbon Dioxide* PD Committee:

- William Bahnfleth - Public
- Howard Kipen - General
- Josephine Lau - General
- Corrine Mandin - Public
- Chandra Sekhar - General
- Pawel Wargocki - Public
- Lan Chi Nguyen Weekes - General

**BACKGROUND:** Andrew Persily was previously approved as PD committee chair and developed the proposed roster. Persily has a 'public' designation, so the committee meets the balance requirements for PD committees (4 public, 4 general). The members represent a number of relevant ASHRAE committees and outside expertise.

**TechC Vote: 13-0-0, CNV**

### **C. OPERATIONS SUBCOMMITTEE**

OPS Chair, Art Giesler, presented the Operations Subcommittee report listed on Basecamp as [05A OPS Report to TechC 2\\_5\\_2020\\_Final\\_Correction.docx](#)

**CM4** It was moved by Art Giesler that motions 1 through 4 of the OPS Report be approved as a consent agenda item.

- a. That Technology Council recommend to the BOD that the Procedures for ASHRAE Standards Action (PASA) 4.2.2.6 *Standards Reaffirmation Subcommittee (SRS)*, PASA 7.2.4.2, *Numerical Requirements for Standards Action Votes*, PASA 7.4.3, *Balance and Interest Categories*, PASA, *Definitions* be revised

**BACKGROUND:** Standards Committee assigned PPIS an action item to review the term "consensus body" in PASA. The term "consensus body" and "project committee" is used interchangeably; the term is not used consistently, and neither "consensus body" nor "project committee" are defined in PASA. The proposed changes provide a resolution to the issue.

- b. That Technology Council recommend to the BOD that the Procedures for ASHRAE Standards Action (PASA) 4.2.2.6, *Standards Reaffirmation Subcommittee (SRS)*, and Standards Committee Manual of Procedures (StdC MOP), 6.2.6.1, *Standards Reaffirmation Subcommittee Membership*, and Standards Committee Reference Manual 13 (StdC RM), *Standards Reaffirmation Subcommittee*, be revised

**BACKGROUND:** Current practice for SRS membership approval stops at the Standards Committee Chair. The proposed changes would reconcile this change across all Standards Committee documents.

- c. That Technology Council recommend to the BOD that the Procedures for ASHRAE Standards Action (PASA) be approved.

**BACKGROUND:** This term "standards committee document" and "SCD" is used in such a way, that it can lead to confusion. The ASHRAE Board of Directors created a rule that states:

*"Rule 1.201.004.4 There are four types of Standards Committee documents:*

- A. Standards*
- B. Guidelines*
- C. User Manuals*
- D. Code Change Proposals"*

In view of the differences between the use of the term and acronym PPIS recommends the following modifications for clarity in the PASA.

- d. That Technology Council recommend to the BOD that the PASA 7.3, *Maintenance of Standards*, be approved as shown:

## PASA

### **7.3 MAINTENANCE OF STANDARDS**

ASHRAE Standards shall be maintained under periodic maintenance procedures except when use of continuous maintenance procedures has been voted by the Standards Committee. (See definitions of continuous maintenance and periodic maintenance in Annex. A.)

When a PC does exist for a standard on periodic maintenance, the PC is required to approve a motion to initiate a revision to the Standard or Guideline and send that recommendation to the Manager of Standards and the SPLS liaison so a PINS announcement can be made. Once the PINS has been announced, the PC may begin a revision process.

When a PC does not exist, a designated subcommittee of StdC shall (a) form Interpretation Committees to respond to requests for interpretation, and (b) with the advice of the cognizant Technical Committee, Task Group, or Technical Resource Group, shall provide recommendations to the Standards Committee concerning the need for reaffirmation, revision based on updated references or adding a second system of units to a standard, thereby making the standard useable in either SI or IP units, withdrawal or the need to form a new project committee to revise a standard.

**BACKGROUND:** Currently our procedures are silent on situations where an SSPC, SGPC, SPC, or GPC wants to issue an addendum to a PM standard or guideline. It rarely occurs but it has occurred in the past for an SPC and now for an SSPC. The proposed language establishes procedures for Periodic Maintenance.

**TechC Vote: 13-0-0, CNV**

**CM5** It was moved by Art Giesler that motions 5 and 6 of the OPS Report be approved as a consent agenda item.

- a. That Technology Council recommend to the Board that ROB 1,201.019, Policy for ASHRAE Special Projects be revised as shown below:

#### **1.201.019 Policy for ASHRAE Special Projects**

(82-07-01-41/83-01-27-45/84-06-21-48/99-06-24-39/10-01-27-14)

##### 1.201.019.1 FOREWORD

- ~~A. This "Policy for ASHRAE Special Projects," and its companion document "Procedures for ASHRAE Special Projects" (Appendix A of the Technology Council Manual of Procedures), originated in "Policy and Procedures for ASHRAE Special Projects," formerly Appendix B of the Technology Council Board Approved Rules. In June 1999 this original document was revised and split into the policy document and procedures document listed above. In June 2005, additional revisions were made to include policies related to Fast Track Special Projects and Cooperative Special Projects and to retain only the policy related material in this document, while moving all procedural material into the Technology Council MOP.~~
- ~~B. The original "Policy and Procedures for ASHRAE Special Projects" was developed by a presidential ad hoc committee consisting of Robert O. McDonald, Chair; David Levine; and Preston McNall; assisted by staff members J. Richard Wright and Steve Beckler and advised by Frank H. Faust. This policy replaced Rules of the Board 360-001-001 "Guidelines for Determining Compensation for Services and Expenses of ASHRAE Members and Representatives involved in ASHRAE Special Projects" adopted January 1979, and 360-001-002 "Policy for Solicitation and Acceptance of ASHRAE Special Projects" adopted June 1979.~~

### 1.201.019.3 Scope

The scope of this policy includes the following: Definitions, including the different types of Special Projects; Character of Special Projects; Criteria for establishment, solicitation, negotiation and acceptance; and, Criteria for compensation of Special Project committees. Procedures for the management of Special Projects will be maintained by ~~are specified in Appendix A of the Technology Council MOP.~~

### 1.201.019.4 Definitions

#### A. ASHRAE Special Project

1. An ASHRAE Special Project is a project, normally performed outside of the ASHRAE research program, that cannot be accomplished effectively or in a timely manner on a volunteer basis and, therefore, requires some form of direct support, compensation or expense reimbursement for the project participants. Special Projects are normally funded in large part from outside sources but ASHRAE may fund or co-fund the project.
6. Administrative and financial oversight of all Special Projects is the responsibility of the ASHRAE Special Projects Subcommittee of Technology Council. Among other responsibilities (as described in the ~~Technology Council MOP~~ Procedures for ASHRAE Special Projects), this subcommittee approves the initiation of all Special Projects.

- B. Regular Special Project - A Regular ASHRAE Special Project is one conducted under normal time frames and without major involvement of multiple organizations that are characteristic of Fast Track Special Projects and Cooperative Projects as defined below. In addition, Regular Special Projects are conducted in a consistent manner involving the Special Projects Subcommittee of Technology Council, a Special Projects Committee and a Cognizant Committee as described in the Procedures for ASHRAE Special Projects ~~Technology Council MOP~~. The other two types of Special Projects are conducted in a variety of manners depending on the circumstances and the organizations involved.

**BACKGROUND:** After review of the Rules of the Board, Special Projects Subcommittee agreed that several clarification changes should be made so that Technology Council and the subcommittee can better manage these projects moving forward.

#### **TechC Vote: 13-0-0, CNV**

- b. That Technology Council recommend to the Board that the Refrigeration Committee Rules of the Board be modified as described in report [Attachment A - REF-CPCC Rules of Board Jan. 2020.pdf](#) in Basecamp.

#### **TechC Vote: 13-0-0, CNV**

*Secretary's Note; The OPS report was corrected during the meeting to include a missed motion.*

**CM6** It was moved by Art Giesler that Motions 7 through 10 of the OPS Report be approved as a consent agenda.

- a. That OPS recommended to Technology Council that Standards Committee Manual of Procedures (StdC MOP) Section 1.6.1., *Voting Rules for Meetings* be revised as shown below:



**StdC MOP 1.6.1**

**1.6 Voting**

**1.6.1 Voting Rules for Meetings**

~~Unless otherwise specified, a~~Actions of the StdC and Subcommittees require approval by a majority of those voting at a meeting, excluding abstentions. ~~Standards actions and official interpretations require;~~

~~Unless otherwise specified, actions of the StdC and Subcommittees require approval by a majority of those voting at a meeting. Standards actions and official interpretations require:~~

- ~~(1) affirmative votes by the majority of the voting membership and~~
- ~~(2) affirmative votes from at least two thirds of those voting (yes+no); excluding abstentions.~~

**1.6.2 Voting Rules for Letter Ballots**

The Chair of the StdC ~~or its subcommittees~~ may authorize a letter ballot to be issued on any matter. ~~Unless otherwise specified, a~~Actions of the StdC and Subcommittees conducted by letter ballot require approval by a majority of the voting membership of the committee, excluding abstentions. ~~Standards action and issuance of an official interpretations require:~~

- ~~(1) affirmative votes of the majority of the voting membership and~~
- ~~(2) affirmative votes from at least two thirds of those voting (yes+no), excluding abstentions.~~

**BACKGROUND:** This recommended change was approved by PPIS on June 21, 2019 at the Kansas City meeting. The proposed StdC MOP and StdC RM changes are to align with current practice.

- b. That OPS recommended to Technology Council that Standards Committee Manual of Procedures (StdC MOP) Section 7, *Approval Sequence of Standards Related Actions* be revised as shown below:

**StdC MOP**

**7 APPROVAL SEQUENCE OF STANDARDS RELATED ACTIONS**

**(Pg 10, 1 change, add another row to table):**

Add new row to table;

Initiate Revision of an Existing SSPC- or SPGC-Managed Standard or Guideline under Periodic Maintenance

Recommend revision within 5-year cycle

-- Initiator -- SSPC/SGPC or Subcommittee

-- Recommending Entity --SSPC/SGPC

-- Affirmative Vote Required -- \*Majority

-- Approving Entity --SSPC/SGPC

-- Affirmative Vote Required -- \*Majority

Action	Initiator	Recommending Entity	Affirmative Vote Required	Approving Entity	Affirmative Vote Required	Other Approval
<b>Initiate Development of a New Standard or Guideline</b>						
Submit to PPIS proposed title, purpose and scope (TPS) and recommendation for a chair (ASHRAE member) & roster (min 4 + chair)	TC/TG/TRG (or a responsible entity or person)	PPIS	*Majority	StdC	*Majority	BOD
<b>Select Project Committee Chair and Members</b>						
Recommend PC Membership	SPLS Liaison & PC Chair	SPLS	*Majority			

Recommend <b>Policy Level PC Chair</b>	PC Chair	PC Chair	SPLS	StdC	*Majority	
<b>Advisory Public Review (APR)</b>						
Recommend advisory public review	PC	PC	*Majority	SPLS Liaison & SPLS Chair	None	
<b>Publication Public Review (PPR)</b>						
Recommend Fast Track Processing	PC or SRS #	PC or SRS	+Standards Action	PC or SRS #	+Standards Action	
Recommend Normal Track Processing	PC or SRS #	PC	+Standards Action	SPLS	*Majority	
<b>Respond to Comments</b>						
Respond to comments submitted via online database	PC or SRS #	PC or SRS #	*Majority	PC or SRS #	*Majority	
<b>Publication/Withdrawal</b>						
Recommend publication or withdrawal following PPR (unresolved objector/commenter/negative PC vote with reason)	PC or SRS #	PC or SRS #	+Standards Action	StdC	*Majority	BOD
Recommend publication or withdrawal following PPR (no unresolved objectors and no threat of legal action)	PC or SRS #	PC or SRS #	+Standards Action	PC or SRS#	+Standards Action	
<b>Appeal</b>						
Uphold or deny an Objector's appeal	Appeals Panel			Appeals Panel	*Majority	
<b>Initiate Revision of an Existing Standard or Guideline (when no PC exists for R/RA/W)</b>						
Recommend revision within 5 year cycle	TC/TG/TRG or SRS	SRS	*Majority	StdC	*Majority	
<b>Initiate Revision or Reaffirmation of an Existing Standard or Guideline (when a PC exists)</b>						
Recommend revision within 5 year cycle	SSPC/SGPC or subcommittee	SSPC/SGPC	*Majority	SSPC/SGPC	*Majority	
Recommend reaffirmation and review updated references	PC	PC	*Majority	StdC	*Majority	
<b>Initiate Reaffirmation of an Existing Standard or Guideline (when no PC exists)</b>						
Recommend reaffirmation and review updated references	TC/TG/TRG	TC/TG/TRG	*Majority	SRS	Majority	
<b>Withdraw an Existing Standard or Guideline</b>						
Recommend withdrawal	TC/TG/TRG or PC	SRS	+Standards Action	SRS	*Majority	
<b>Revise a Title, Purpose and Scope (TPS)</b>						
Recommend revised TPS	Policy Level PC	SPLS	*Majority	StdC	*Majority	TechC
Recommend revised TPS	Other PC	SPLS	*Majority	StdC	*Majority	
<b>Notes</b>						
StdC	Standards Committee					
PC	Project Committee					
PPIS	Standards Committee - Policy, Planning and Interpretations Subcommittee					
SPLS	Standards Committee - Standards Project Liaison Subcommittee					
SRS	Standards Committee - Standards Reaffirmation Subcommittee					
TechC	ASHRAE Technology Council					
BOD	ASHRAE Board of Directors					
Quorum at a meeting	More than 50% of voting membership present					
#	SRS can act as the revision committee under certain circumstances					
*	For a normal committee vote: majority of those voting at a meeting; Letter ballot – majority of the voting membership					
+	For a standards action: affirmative votes by the majority of the voting membership and affirmative votes from at least two-thirds of those voting at a meeting, excluding abstentions. When recorded votes are taken at meetings, project committee members who are absent shall be given the opportunity to vote before or after the meeting. See example below.					

Letter Ballot -- Affirmative votes by the majority of the voting membership and affirmative votes from at least two-thirds of the voting membership, excluding abstentions. Negative votes <u>with reason</u> shall be 'recirculated' to all voting members with time limit in case anyone wants to change vote. Results are final upon expiration of time limit.
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**Background:** This allows SPCs and SSPCs to make a recommendation to revise a standard before disbanding or to make recommendations to revise documents for which the committee is responsible for maintaining. A mechanism doesn't currently exist.

- c. That OPS recommended to Technology Council that changes to the Residential Building Committee MOP be approved as shown in Attachment [06F ResBuildingComm MOP Proposed 11-21-19 PTG](#) of the RBC Report posted on Basecamp.

**Background:** The RBC has reviewed their MOP and updated it to better align with the ROB and to remove items that more reasonably should reside in a Reference Manual.

- d. That OPS recommended to Technology Council that changes to the Refrigeration Committee MOP be approved as shown in [Attachment A - REF-CPCC Rules of Board Jan. 2020.pdf](#) of the REF Report posted on Basecamp.

**TechC Vote: 13-0-0, CNV**

## 5. SPECIAL COMMITTEE/LIAISON REPORTS

### A. GAC Liaison Report

Mike Bilderbeck, GAC Liaison, gave an update on GAC activities. The report can be found on Basecamp listed as [06A Tech Council Liaison report from GAC McQuade Winter 2020 Orlando v1.pdf](#) for further review.

### B. Society Planning Liaison Report

Sarah Maston reviewed with the Council the Society's Planning Liaison Report which can be found on Basecamp listed as [06B\\_SP Gaps and Overlap Analysis\\_TechC\\_Rev](#)

*AI#1 – An action item was assigned to Staff to post Sarah Maston's Society Planning Liaison Report to Basecamp for review by Chairs.*

## 6. ASHRAE DC OFFICE UPDATE

Alice Yates from ASHRAE's DC office presented a report on the activities of GAC and the DC office. This presentation can be found on Basecamp listed as [07 2020 Tech Council GA Staff Report\\_.pdf](#).

## 7. DOT REPORT

Stephanie Reiniche gave a brief update on the Technology's department activities. The DOT report is posted on Basecamp for further review listed as [08\\_DOT Report.doc](#).

## 8. STANDING COMMITTEE REPORTS

Wayne Stoppelmoor presented the Standards Committee Report. Motions were presented and highlight information items are shown below. The full report is posted on Basecamp and listed as [04A-StdC Report to TC Orlando 2020 2.5.20 \(corrected\).doc](#)

### A. STANDARDS

The following motion was moved by Jaap Hogeling and seconded by Heather Platt-Gulledge that:

- M7** Standards Committee recommends that Technology Council recommend to Publishing and Education Council that ASHRAE make all standards accessible over the internet at no cost.

**Background:** In the first recommendation from the *Report of the Presidential ad hoc Committee on ASHRAE's Role in the Globalization of Standards*, in order to increase the international use and influence of ASHRAE standards, consider changing the business model for standards distribution so that ASHRAE standards are available over the internet at no cost, thus enhancing their availability, while retaining fees for the sale of printed copies of standards. This would bring ASHRAE's policy in line with that of the Internet Engineering Task Force, whose Internet standards are arguably the most widely adopted and successful in the world.

- M7A** It was moved by Heather Platt Gulledge and seconded by Rick Hermans.

That the motion be amended to delete “for free” and replace it with “for viewing only”.

TechC Vote on Motion to Amend: 13-0-0, CNV

**TechC Vote on Motion as Amended: 12-0-1<sup>1</sup>, CNV**

*Secretary's Note: This motion has been referred to PEC for review and consideration.*

It was moved by Jaap Hogeling and seconded by Krishnan Gowri

- CM8** That motions 2 through 20 of the Standards Committee Report be approved as a consent agenda for publication as listed.
- a. BSR/ASHRAE Addendum *a* (*capacity factors*) to ANSI/ASHRAE Standard 15-2019, *Safety Standard for Refrigeration Systems*.
  - b. BSR/ASHRAE Addendum *b* (*adds definition for “labeled”*) to ANSI/ASHRAE Standard 15-2019, *Safety Standard for Refrigeration Systems*.
  - c. BSR/ASHRAE Addendum *g* (*Adds zeotropic refrigerant blend R-470B*) to ANSI/ASHRAE Standard 34-2019, *Designation and Safety Classification of Refrigerants*.
  - d. BSR/ASHRAE Addendum *p* (*energy recovery devices*) to ANSI/ASHRAE Standard 62.1-2019, *Ventilation for Acceptable Indoor Air Quality*.
  - e. BSR/ANSI/ASHRAE/ICC/USGBC/IES Addendum *ac* (*Demand Response*) to ANSI/ASHRAE/ICC/ USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*.

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<sup>1</sup> Jaap Hogeling abstained because he did not follow the motion.

- f. BSR/ANSI/ASHRAE/ICC/USGBC/IES Addendum *ae* (*Construction and Demolition Waste*) to ANSI/ASHRAE/ICC/ USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*.
- g. Standards Committee recommends that BSR/ANSI/ASHRAE/ICC/USGBC/IES Addendum *ai* (*High Capacity Water Heating*) to ANSI/ASHRAE/ICC/ USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved.
- h. BSR/ANSI/ASHRAE/ICC/USGBC/IES Addendum *aj* (*Low Power Fans*) to ANSI/ASHRAE/ICC/ USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*.
- i. BSR/ANSI/ASHRAE/ICC/USGBC/IES Addendum *ao* (*Section 7 Clarifications*) to ANSI/ASHRAE/ICC/ USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*.

**TechC Vote: 13-0-0, CNV**

It was moved by Jaap Hogeling and seconded by Krishnan Gowri that:

- M9** Standards Committee recommends that the proposed changes to the Title, Purpose, and Scope (TPS) for SPC 514P, *Minimizing Risk of Disease and Injury Associated with Building Water Systems*, be approved as shown in Attachment A of the Standards Committee Report posted on Basecamp as [STDS RPT ATT A 514.doc](#).

**TechC: 12-0-1,<sup>2</sup> CNV**

It was moved by Jaap Hogeling and seconded by Van Baxter that:

- M10** Standards Committee recommends that the following changes to Standards Committee MOP be approved by Technology Council:

**Standards Committee Manual of Procedures:**

**6.2.5 Code Interaction Subcommittee**

CIS shall advise the StdC on ASHRAE's relationship with building model code developers, and standards developers, writing bodies. CIS shall advise StdC on ASHRAE's relationships with other organizations when directed by the Board of Directors. (See StdC Reference Manual Section 12).

**6.2.5.1 CIS Membership**

CIS is comprised of StdC and non-StdC members with knowledge of Code Development, and Standards Development. Membership is subject to approval by the Chair of Technology Council.

**Background:** ASHRAE BOD ExCom assigned an action item to Standards Committee to develop a policy that provides a clear path for committees to request ASHRAE submit proposals and comments to standards being developed by other organizations. This proposed change expands the rules so CIS is responsible for reviewing and approving those requests.

**TechC: 13-0-0, CNV**

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<sup>2</sup> Heather Platt Gullede abstained because she is a committee member of SPC 514.

Mr. Stoppelmoor highlighted the following information items from the Standards Committee Report to Tech Council.

1. Standards Committee approved and will recommend that the Board approve the following for publication:
  - a. BSR/ASHRAE Addendum x to ANSI/ASHRAE Standard 62.2-2019, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*
  - b. BSR/ASHRAE/ASHE Addenda b, c, l and p to ANSI/ASHRAE/ASHE Standard 170-2017, *Ventilation of Health Care Facilities*
  - c. BSR/ANSI/ASHRAE/ICC/USGBC/IES Addenda j, p, q, u and an to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*
2. Standards Committee approved and will recommend that the Board approve the following Title, Purpose and Scope and that SSPC 170 be responsible for developing the Guideline:

**TITLE:** Operations Guideline for Ventilation of Health Care Facilities

**PURPOSE:** The purpose of this guideline is to provide information and guidance for the operation of ventilation systems that provide environmental control in new and existing health care facilities.

**SCOPE:**

**2.1** This guideline is intended for use by facility operators and those involved in the design, construction, installation, commissioning, management, operation, maintenance, accreditation, inspection, and service of health care facilities. This guideline applies to patient care areas, resident care areas, and related support areas within health care facilities.

**2.2** This guideline considers chemical, physical, and biological contaminants that can affect the delivery of medical care to patients and residents, the convalescence of patients and residents, and the safety of patients, residents, health care workers, and visitors.

**2.3** This guideline provides guidance for temperature and humidity.

**2.4** This guideline provides guidance for odor control and asepsis.

**2.5** This guideline provides guidance for ventilation rates including, but not limited to outdoor air, to serve health care facilities.

**2.6** This guideline provides guidance for thermal comfort.

3. Standards Committee approved and will recommend that the Board approve the following Title, Purpose and Scope and that a new Guideline Project Committee be formed:

**TITLE:** Protecting Building Occupants from Smoke During Wildfire and Prescribed Burn Events

**PURPOSE:** The purpose of this guideline is to recommend building measures to minimize occupant health impacts caused by smoke from wildfire and prescribed burn events.

**SCOPE:**

**2.1** This guideline applies to commercial buildings; institutional buildings, including healthcare facilities; and multi-unit residential buildings, as well as dedicated spaces within these building types intended for temporary human occupancy during a wildfire or prescribed burn event.

**2.2** This guideline includes buildings expected to be occupied by potentially susceptible populations, including children and the elderly.

**2.3** This guideline provides recommendations related to the design, installation, commissioning, operation, and maintenance of building envelope, ventilation, and air cleaning systems.

4. Standards Committee reviewed the background and documentation related to addendum a to 62.2 (unvented combustion heaters). A motion on this topic was postponed until the spring Standards Committee meeting and an Ad Hoc Committee, to be chaired by Wayne Stoppelmoo, has been tasked with reviewing the issues and whether or not there were sufficient efforts to resolve objections and whether or not technical issues were afforded due process.

## **B. RESEARCH ADMINISTRATION**

The Chair David Yashar presented that there were no report or motions coming forward from RAC at this time. However, two motions will come forward under Executive Session later in the meeting.

## **C. TECHNICAL ACTIVITIES**

Chair Jay Kohler presented the motions and information items from TAC. The full report is posted on Basecamp and listed as [04C – TAC Rprt to TechC 20.W.docx](#)

The following motion was moved by Rick Hermans and seconded b Krishnan Gowri that:

- M11** TAC recommends that Technology Council approves changes to TAC MOP which is shown on Basecamp as [04C - Att. A - TAC-MOP.W20 - 2.5.2020.docx](#)

**BACKGROUND:** Changes were made to reflect current practices of TAC. Some changes are just editorial, others are related to meetings and reporting.

**TECHC VOTE: 13-0-0, CNV**

Jay Kohler highlighted the TC reorganization activities and reported on the success of the combined TC Chairs Breakfast. TAC is working on ways to track and document what all the TCs are doing to reduce duplication of work.

## **D. ENVIRONMENTAL HEALTH**

Chair Wade Conlan presented the motions and information items from EHC. The full report is posted on Basecamp and listed as [04D - EHC Rprt to TechC.20.W.docx](#) .

It was moved by Rick Hermans and seconded by Krishnan Gowri that:

- M12** EHC recommends that Technology Council recommend to the BOD that SSPC 62.2 addendum a to 62.2-2019 on unvented combustion appliances be approved for publication.

**BACKGROUND:** Contamination from unvented combustion appliances is an important factor in indoor air quality. The Society has taken positions on this topic which are supported by this proposed change. The Board of Directors has previously approved this addendum, but it was returned on appeal. Standards Committee has certified that those deficiencies have been resolved and EHC believes the publication of this addendum should be expedited to achieve Society policy.

**M12A** After a discussion on the publication, it was moved by Dennis Knight and seconded by Van Baxter to postpone the motion until the pre-Austin meeting.

**TECHC VOTE to Postpone: 11-0-2<sup>3</sup>, CNV**

It was moved by Rick Hermans and seconded by Krishnan Gowri that:

**M13** EHC recommends that Technology Council recommends to Publication & Education Council that the *Residential IAQ Guide* be made available for free download to the public.

**BACKGROUND:** The *Residential IAQ Guide* has sold just over 100 (hard copies and downloads) sold since publication for about \$8,000 in income to ASHRAE. ASHRAE members paid \$150,000 to have it developed. SSPC 62.2 has moved to withdraw G24-20XX, because the information is available in the *Residential IAQ Guide*. Making the information in the Residential IAQ Guide would make the information vastly more broadly available for use. For example, the 2009 *Commercial IAQ Design Guide* is now available for free download after initially being sold for \$85 with limited distribution. 18,000+ copies were distributed in the year after being made available for free.

**TECHC VOTE: 13-0-0, CNV**

*Secretary's Note: This motion was referred to PEC.*

**E REFRIGERATION**

Rajan Rajendran gave a brief report on the activities of REF specifically highlighting the changes to the structure for the committee and there were no motions coming forward for Technology Council's consideration. The full report is posted on Basecamp and listed as [4E-REF Rprt to TechC.19\\_Release1 - Copy.docx](#)

**F RESIDENTIAL**

Paul Francisco reviewed the activities of RBC and the full report can be found on Basecamp listed as [04F\\_RBC\\_Report\\_to\\_TechC\\_2020-02-03\\_F.docx](#). The following were highlighted:

1. The Residential Building committee (RBC) is in the process of reaching out to residential stakeholders and organizations that are not traditionally ASHRAE members. Fifteen stakeholders were identified to be part of the initial outreach. Phone calls were made in January 2020 to about half of these organizations to identify critical needs and opportunities for collaboration and growth in the residential sector. Phone calls to the remaining organizations will be made in February 2020. Once completed the results will be compiled and compared to identify consistent themes that can be acted on.
2. The RESNET conference was identified as a high priority for ASHRAE involvement and a free booth was been secured for their February 2020 conference. The committee reviewed a flyer developed for the conference by ASHRAE marketing. The outcome of this event will be evaluated for consideration of future ASHRAE involvement in other similar residential conferences.

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<sup>3</sup> Bill McQuade abstained due to conflict of interest and Steve Emmerich abstained due to violation of PASA concerns.



## 9. EXECUTIVE SESSION

The following motions were brought forward from RAC under Executive Session.

It was moved by Trent Hunt and seconded by Van Baxter that:

- M14** Tentative research project 1683-TRP, *Experimental Evaluation of Two-Phase Pressure Drop and Flow Pattern in U-Bends with Ammonia*, be awarded to GIK Institute of Engineering Sciences for a period of 30 months.

### **TechC Vote: Motion Passed**

It was moved by Trent Hunt and seconded by Van Baxter that:

- M15** Tentative research project 1780-TRP, *Test method to evaluate cross-contamination of gaseous contaminant within total energy recovery wheels*, be awarded to University of Saskatchewan for a period of 15 months.

### **TechC Vote: Motion Passed**

## 10. NEXT MEETING

Reminder that our Summer Meeting in Austin, Texas is scheduled for Wednesday, July 1, 2020 – 9:00 a.m. to 12:00 p.m.

There being no further business to come before the Council, the meeting was adjourned.