



**TECHNOLOGY
COUNCIL
Summer Toronto Meeting
June 29, 2022**

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

MOTIONS

Technology Council Toronto Conference Motions June 29, 2022

Motion Number	Motion
<u>1</u>	Tech Council to recommend to the Board of Directors that Rules of the Board 2.432.01, Membership, and 2.423.02, Operations, be revised as shown in the Operations Report Motion One.
<u>2</u>	Technology Council recommend to the Board of Directors Executive Committee to initiate a new ASHRAE position document (PD) on <i>Human Health and Wellness in the Built Environment</i> .
<u>3</u>	Tech Council approve the changes to the Technology Council Reference Manual changing the Position Document format as shown in DRSC Report Attachment 04C-B.
<u>4</u>	Tech Council reaffirm the <i>Resiliency in the Built Environment</i> position document.
<u>5</u>	Technology Council recommend to the Board of Directors that ASHRAE jointly sponsor ASHRAE Standard 240P, <i>Evaluating Greenhouse Gas (GHG) and Carbon Emissions in Building, Design, Construction and Operation</i> with ICC (International Code Council) with ASHRAE as the lead cosponsor following ASHRAE's ANSI development procedures.
<u>6</u>	Technology Council recommend to the Board of Directors that ASHRAE jointly sponsor ASHRAE Standard 232P, <i>Schema-Based Building Data Model Protocols</i> , with IBPSA (International Building Performance Simulation Association) with ASHRAE as the lead cosponsor following ASHRAE's ANSI development procedures.
<u>7</u>	Proposed changes to the TPS for Standard 62.2-2019, <i>Ventilation and Acceptable Indoor Air Quality in Residential Buildings</i> , be approved as shown in the Standards Committee Report <u>Attachment A</u> .
<u>8</u>	Proposed changes to the TPS for Standard 90.2, <i>Energy Efficient Design of Low-Rise Residential Buildings</i> , be approved as shown in the Standards Committee Report <u>Attachment B</u> .
<u>9</u>	Proposed changes to the TPS for Standard 191, <i>Standard for the Efficient Use of Water in Building Mechanical Systems</i> , be approved as shown in the Standards Committee Report <u>Attachment C</u> .

ACTION ITEMS
Tech Council Las Vegas Conference
February 2, 2022

AI#	Responsibility	Status	Description
1	Mike Pouchak	New	Set up an informational meeting to demonstrate the new use of Basecamp by RAC to those interested on Tech Council.

Action Items
Technology Council Fall Virtual Meeting
November 4, 2021

AI#	Responsibility	Status	Description
2	DRSC	Complete	Work with GAC to finalize potential new PD format and send to OPS.
3	RAC	Ongoing	Develop and present to Tech Council an implementation and monitoring plan for the new Research Strategic Plan for review at the Spring Tech Council Meeting.

Action Items
Technology Council Summer Virtual Meeting
Wednesday, June 23, 2021

AI#	Responsibility	Status	Description
1	Staff	Complete	Distribute suggested streamlining ideas written by Tim McGinn to facilitate ideas for consideration by the Standing Committees
2	Wilkins	Complete	Provide a list of project amounts that may be ready for bid to Staff for distribution.

Action Items
Technology Council Winter Virtual meeting
Tuesday, February 2, 2021

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

Minutes
Technology Council

<p><u>Voting Members Present:</u> Tim McGinn, Chair Sarah Mason, Vice Chair Billy Austin Wade Conlan Rick Hermans Jaap Hogeling David Yashar Krishnan Gowri* (Virtual) Christopher Phelan Tyler Glesne Heather Platt Gulledge Paul Fransico Adrienne Thomle Wei Sun (Virtual)</p> <p><u>Non-voting Present:</u> Rick Heiden, StdC (Virtual) Larry Smith TAC Michael Pouchak, RAC* Luke Leung, EHC* Richard Karg, RBC* (Virtual) Susanna Hanson StdC Nicholas Clements, EHC* (Virtual) Dustin Lilya, REF-CPPC Stephen Kujak, REF_CPPC William Healy, RBC* (Virtual)</p>	<p><u>Staff</u> Stephanie Reiniche, DOT Connor Barbaree, Sr. MOS Donna Daniel Steve Hammerling, Manager of Technical Services Porchia Delkler</p> <p><u>Guests</u> Douglas Fick Carl Huber Alice Yates Matthew Young David Griffin II Carl Huber John Constantinide Julian Pellegrini Kevin Gebke Costas Balaras</p> <p><u>TechC Absent:</u> Omar Abdelaziz, RAC Craig S Messmer,</p>
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1. CALL TO ORDER/OPENING COMMENTS

Chair McGinn called meeting to order at 09:00am EDT. The commitment to care, the commitment to the Code of Ethics and the ASHRAE Core Values were shared during the meeting.

At the request of the host chapter the following Land Acknowledgment was read into the record:

The 2022 Annual Conference Host Chapter (Toronto) Board of Governors unanimously passed a motion related to the statement below. It has been requested that the statement be on agendas during the 2022 Annual Conference.

The Toronto Chapter of ASHRAE would like to acknowledge that we operate on the Traditional territory of the Mississauga's of the Credit First Nation, as well as other Indigenous peoples who have lived here over time under treaty number 13

and dating back to the Royal Proclamation of 1763. We are grateful to share this land so that we may learn from each other and share our knowledge and experience towards furthering our mission and vision.

All members introduced themselves including guests. The agenda was accepted as presented.

Secretary's Note: Quorum was met with 12 voting members, including the Chair at the start of the meeting. Voting members increased to 14 at the start of the Standards Committee report. All reports -referenced in the minutes are on Basecamp in the folder "Meeting 2021-2022 2022-04 Spring Meeting."

2. MINUTES/ACTION ITEMS

A. Tech C Winter Meeting Minutes - [03A](#)

B. TechC Spring Virtual Meeting Minutes – April 13, 2022 [03B](#)

There being no changes to the draft minutes, the minutes were approved by acclamation.

C. Action Items

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

3. SUBCOMMITTEE REPORTS

A. Operations (OPS)

Rick Hermans, OPS Chair, presented the report. The report is posted on Basecamp as O4A OPS Report to TechC 06 28 2022.

It was moved by Mr. Hermans that:

M1

Tech Council to recommend to the Board of Directors that Rules of the Board 2.432.01, Membership, and 2.423.02, Operations, be revised as shown in the Operations Report Motion One.

BACKGROUND: When formed the Residential Building Committee needed a more restrictive group of members. This worked well when originally formed but is no longer needed and is much more stringent than other Standing Committees. This change will make it easier to fill RBC with members that will still meet its needs. It was agreed that full member grade is necessary to be a member of RBC. This is again consistent with most other Standing Committees. It's being proposed to add a qualifications section to encourage finding those with key committee experience as members without making it a requirement. Under operation one editorial change was made because the BETEC is no longer a sponsor of the Buildings Conference. These proposed changes were sent to Society Rules Committee (SRC) for feedback prior to this meeting. RBC incorporated the suggested changes from SRC. which was changing must to shall

in two locations.

TechC Vote: 11-0-0 CNV

Rick Hermans highlighted the following information items:

1. OPS reviewed a motion from Standards Committee to revise PASA as shown in Attachment A of the OPS report. These proposed changes were submitted by Staff to Standards Committee. In an effort to streamline the Standards development procedures the recommended changes, most importantly, include the removal of standards actions approvals to a lower approval body (with the exception of credible threats of legal action) and a simpler voting calculation to promote efficiency in the standards development process. The motion was tabled and will be un-tabled at a meeting of Operations in the fall to allow for full review and seek feedback from Technology Council and the Board of Directors. The goal is to forward the final version for Board consideration at the October Board meeting in Istanbul. It should be noted that these proposed changes, once approved by ASHRAE, will have to go out for public review at ANSI and be approved by ANSI. The vote at Standards Committee was 22-0-0, CNV.

A1 An action item was assigned to all Tech Council members to review the proposed PASA and Rules of the Board changes from Standards Committee prior to the Fall OPS meeting and send comments to Staff.

2. TAC approved changes to Technical Committee (TC) Manual of Procedures (MOP), now called the Functional Group (FG) MOP. The following are the major changes:
 - A. Requires balance for voting membership and known financial interests in other entities. This was incorporated in June 2021. "...shall maintain a balance of Members in these stakeholder interest categories. No single stakeholder interest category shall constitute a majority...."
 - B. "Requires that the Chair, Vice-Chair, and all voting members be members of ASHRAE.
 - C. Both balance and ASHRAE membership can be waived with section head approval.
 - D. Recommends the FGs conduct virtual meetings between the Annual and Winter meetings.
3. RAC created a Summary historical spreadsheet of TAC / Standards entities with key metrics. Strategies tied to Strategic Plan: MORTS & RAC have agreed to tag the "RSP" designation (for Research Strategic Plan) in internal MORTS reports and RL tracking documents and will also identify these RSP designations in the Research Report ASHRAE Journal Article to be published in the October edition of the ASHRAE Journal.

4. The Tech Council MBOs were updated and are posted on Basecamp as 04A Attachment B Tech Council Consolidated MBOs 2021-2022.xls.

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_2022_06_29.docx. There were no motions presented but the following information item was highlighted:

Special Projects Subcommittee again discussed collaboration with RAC and Publications Committee on the PTAR process. It was agreed that the Task Force on Decarb and Technology Council ExCom should also be engaged in the discussions. A meeting will be scheduled in July 2022 to further discuss the topic and to clarify any remaining ambiguity on roles and responsibilities between the three committees.

C. Document Review Subcommittee (DRSC)

Sarah Maston, Chair of DRSC Chair, presented the report. The report is posted on Basecamp as O4A OPS Report to TechC 06 28 2022.

It was moved by Ms. Maston that:

- M2** Technology Council recommend to the Board of Directors Executive Committee to initiate a new ASHRAE position document (PD) on *Human Health and Wellness in the Built Environment*.

BACKGROUND: The PD proposal (**Attachment 04C-A on Basecamp**) was developed and approved by the Environmental Health Committee. This is one of the recommendations from the final report of the MTG.HWBE (Health and Wellness in the Built Environment) that EHC is working to implement.

TechC Vote: 9-2¹-0, CNV²

It was moved by Ms. Maston that:

- M3** Tech Council approve the changes to the Technology Council Reference Manual changing the Position Document format as shown in DRSC Report Attachment 04C-B.

BACKGROUND: Changes to the format of the position documents were developed earlier and used for MOLD PD, but not formally considered by Tech Council. DRSC was waiting for and received feedback from Government Affairs Committee that the

¹ Adrienne Thomle and Paul Francisco voted no. Thomle: I believe the purpose is to open ended and broad. Francisco: Report to be updated to reflect the negative vote.

² *Comments made during the discussion on the request for the new position document. Paul is concerned take us down the wrong path, we should take more time to get it right. Rick Hermans – said this is the purpose of MTG and supposed to end its work.

new format would still meet their needs.

TechC Vote: 11-0-0, CNV

It was moved by Ms Maston, seconded by Wade Conlan, that:

M4

Tech Council reaffirm the *Resiliency in the Built Environment* position document.

BACKGROUND: This PD (**Attachment 04C-C posted on Basecamp**) expired June 26, 2022. TC 2.10 is the cognizant committee for this PD and recommended reaffirmation at their meeting in Toronto. The TC met after DRSC, so while DRSC did discuss, they did not make a formal motion to reaffirm.

TechC Vote: 11-0-0, CNV

Secretary's Note: Billy Austin and David Yashar arrived at the start of the Standards report. Total voting members including the Chair is 14.

4. STANDING COMMITTEE REPORTS

A. Standards Committee (StdC)

Susanna Hanson, Vice-Chair of Standards Committee, presented the report because the Chair had to participate remotely. The full report can be found on Basecamp as 05AStdC Report to TC Annual Mtgs. June 2022.docx.

It was moved by Adrienne Thomle, seconded by Wade Conlan, that:

M5

Technology Council recommend to the Board of Directors that ASHRAE jointly sponsor ASHRAE Standard 240P, *Evaluating Greenhouse Gas (GHG) and Carbon Emissions in Building, Design, Construction and Operation* with ICC (International Code Council) with ASHRAE as the lead cosponsor following ASHRAE's ANSI development procedures.

BACKGROUND: ICC and ASHRAE both filed PINS related to decarbonization that were similar in proposed scope and purpose. Staff from both ASHRAE and ICC met to discuss possible ways to move forward that would reduce confusion and competition in the market-place. It was proposed to submit to the respective organizations a request to develop the standard jointly with ASHRAE as the lead organization. It was agreed that the standard should be applicably globally and not be North American Centric and that global representation will be sought. The proposal was shared with the Board of Directors ExCom for feedback and subsequently shared with the Task Force on Building Decarbonization ExCom. The TFBD ExCom agreed that this was a good idea to move forward. The Chair will be a representative from ASHRAE that will be a non-voting member that will run the committee meetings and be an expert on process. There will be co Vice-Chairs. The intent is to expedite the standard and immediately issue a new call for

members soliciting participation from both organizations. A standards development agreement has been reached between the staff at both organizations if approved.

TechC Vote: 12-0-0 CNV

It was moved by Jaap Hogeling, seconded by Wade Conlan, that:

M6

Technology Council recommend to the Board of Directors that ASHRAE jointly sponsor ASHRAE Standard 232P, *Schema-Based Building Data Model Protocols*, with IBPSA (International Building Performance Simulation Association) with ASHRAE as the lead cosponsor following ASHRAE's ANSI development procedures.

BACKGROUND: SPC232P formally voted to recommend this at its first meeting. IBPSA is a key player in the modeling community and also a co-sponsorship of ASHRAE/IBPSA Standard 209, *Energy Simulation Aided Design for Buildings except Low-Rise Residential Buildings*. Having IBPSA involved in the development and publication of Standard 232 will help to strengthen ASHRAE's relationship with IBPSA and allow ASHRAE to reach a broader community with the standard.

TechC Vote: 12-0-0 CNV

It was moved by Mr. Hogeling, seconded by Ms. Thomle, that:

M7

Proposed changes to the TPS for Standard 62.2-2019, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*, be approved as shown in the Standards Committee Report [Attachment A](#).

TechC Vote: 11-0-1³ CNV

It was moved by Mr. Hogeling, seconded by Mr. Conlan, that:

M8

Proposed changes to the TPS for Standard 90.2, *Energy Efficient Design of Low-Rise Residential Buildings*, be approved as shown in the Standards Committee Report [Attachment B](#).

TechC Vote: 12-0-0 CNV

It was moved by Mr. Hogeling, seconded by Mr. Conlan, that:

M9

Proposed changes to the TPS for Standard 191, *Standard for the Efficient Use of Water in Building Mechanical Systems*, be approved as shown in the Standards Committee Report [Attachment C](#).

TechC Vote: 12-0-0 CNV

Ms. Hanson highlighted the following information items:

³ Paul Francisco abstained because he is a member of the SSPC.

1. IECC Standards Process Updates- ASHRAE's commercial committee representative has been actively participating and representing ASHRAE's position throughout the development and consideration of code change proposals by the IECC commercial consensus committee. The commercial consensus committee will be releasing a public review draft for public comment in the August-October 2022 timeframe. ASHRAE must be active in the public comment process through the appropriate channels to empower our representative during the voting process. The ICC has also made the statement that their intent is to place the IECC on a continuous maintenance process after its initial publication.
2. Building Decarbonization Task Force Collaboration: Standards Committee received a report from its Building Decarbonization Ad Hoc that contains multiple considerations and recommendations for the Society and the Society Task Force on Building Decarbonization.

B. Research Administration Committee (RAC)

Secretary's note: RAC moved to executive session

C. Technical Activities Committee (TAC)

Larry Smith, the Chair of TAC, presented the report that is on Basecamp as 05C-TAC Rprt to Tech.22A.docx. There were no motions presented. The following information items were highlighted:

1. TAC continues to use the tools and forms (TC Activity Form & Section Head Dashboard) to perform both a subjective and objective evaluation of the functional groups under TAC. These tools are being used and data collected can now be used and made available to help inform decisions. 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. Some analysis is included in the TAC Report as **Attachment A**.
2. TAC approved a revised FG Manual of Procedures (MOP) and a new Multi-disciplinary Task Group (MTG) MOP. TAC was asked to reconsider the changes requiring that voting members be ASHRAE members.. There was considerable discussion on the issue in TAC's Wednesday meeting. Discussion included the issues the changes are intended to address, the impact, and reason changes were made. After this discussion, TAC reaffirmed their decision and no formal motion to reconsider was made.

D. Environmental Health Committee (EHC)

Luke Leung, the Chair of EHC, presented the report that is on Basecamp as 05D-EHC Rprt to TechC.22A.docx. No motions were presented. The following information items were highlighted:

1. EHC is working to form a Multi-Disciplinary Task Group (MTG) to develop an IEQ Building Audit Assessment tool. EHC will identify a scope for such a tool and reach out to standard committees, technical committees and others that would have an interest in participating.
2. The IAQ 2020 Conference, *IEQ Performance Approaches, Transitioning from IAQ to IEQ*, took place May 4-6, 2022 in Athens, Greece as a hybrid meeting. Chair's Bill Bahnfleth and Max Sherman co-organized the ASHRAE, AIVC and IEQ-GA event. There were 128 papers accepted from 395 abstracts. Selected authors will be invited to expand their conference papers for inclusion in a special edition of the STBE. EHC plans to help organize the next IAQ conference in 2025.
3. The ASHRAE Epidemic Task Force (ETF) held their 31st and final meeting. Their current task is to write a final report and coordinate transitioning guidance with various ASHRAE TCs, PCs, etc. A subcommittee of EHC will be formed to complete or carry on the work of the ETF as appropriate.

Secretary's Note: During the highlighting of the ETF activities it was emphasized by the Tech Council leadership that there is an urgency to finalize the plan for transferring the work of the ETF.

E. Refrigeration/CPCC (REF-CPCC)

Dustin Lilya, the Chair of REF-CPCC, presented the report that is posted on Basecamp as 5E_REF-CPCC_Rprt_to_TechC.A22. No motions were presented. The following information items were highlighted:

1. World Refrigeration Day 2022 focused on the Theme "Cooling Matters" to raise awareness among the wider public about the importance of refrigeration technologies in everyday life. In partnership with IIR, the event focused on food storage and preservation. More information on this year's Celebration through the following Link: <https://worldrefrigerationday.org/>.
2. Concrete steps are being taken to streamline and improve MBO progress on the REF-CPCC subcommittee level and ensure active participation. The following actions at the REF-CPCC meeting:
 - a. Refreshing the Reference Manual to align the changes to the new sub-committee structure.
 - b. Added language to the reference manual to clarify sub-committee chair expectations as follows:
 - i. Having subcommittee meeting to assign actions after both the Society Annual and Winter Meetings
 - ii. Meeting a minimum of 30 Days prior to the Annual/Winter meeting.
 - iii. Creating a standardized report format in alignment with the Tech Council repo.rt
 - c. When new REF-CPCC Committee or Subcommittee Chairs are assigned a meeting will be initiated within the next month for each subcommittee to update MBO's as well as provide action items towards those MBO's for report at the Winter Meeting.

- d. All sub-committee meetings will be scheduled in advance after each annual/winter meeting, to avoid things falling off in planning for meetings.

F. Residential Building Committee (RBC)

Rick Karg, the Chair of RBC, presented the report that is posted on Basecamp as 05F_RBC_Report_to_TechC_2022-06-29-Final.docx. No motions were presented. The following information items were highlighted:

1. RBC presented the inaugural Residential Buildings Service Award to Theresa Weston at the meeting. This included an engraved plaque.
2. RBC approved the Residential Issue Brief (RIB) on Ventilation, IEQ and Sleep Quality in Bedrooms. This is now posted on the RBC webpage. Work is continuing on the RIB on working from home.
3. RBC continues to work on finding ways to make ASHRAE known in the Residential arena. Work is continuing revising the website to make it attractive to those outside of ASHRAE but also to develop clear terms to optimize the searches and bring the public to ASHRAE. The Communications Subcommittee is developing scripts and an idea for a video to include on the website.

5. SPECIAL COMMITTEE/LIAISON REPORTS

A. GAC Liaison Report

Billy Austin, GAC Liaison, presented the report that is posted on Basecamp as 06A GAC Report wAttachments to Tech Council June 2022. Mr. Austin highlighted GAC's appreciation for the efforts from the Technology side of ASHRAE and asked that as things are developed by Technology Council and its committees to keep GAC informed so they can promote them.

B. Finance Liaison Report

Mr. McGinn reported that the funding requests for the Tech Council capital spending projects were approved. He also highlighted the request from the Board ExCom to have staff develop a timesheet tracking system to better allow Finance Committee and the Board to identify the cost to do different projects. Finance Committee believes this would allow for better project management. Mr. McGinn also reminded the Council and standing committees that the budgeting process starts in the fall so begin reviewing budget requests as soon as possible.

C. Society Planning Liaison Report

Ms. Heather Platt-Gulledge reported that they are getting ready to prepare for the development of the next Society Strategic plan for issuance in 2025. Tech Council's liaison is Dr. Alaa. Society Planning is looking for feedback on where the Society should be in 10 to 20 years.

D. Task Force on Building Decarbonization

Mr. McGinn reported that he and Luke Leung served together on the 21-22 Society Year Task Force and Luke will be continuing on the 22-23 Society Year Task Force. The Board of Directors at the Sunday Board meeting approved a budget of 1.8 million dollars over the next three years to assist in developing tools, education, resources, and standards to address decarbonization.

6. DOT Report- Reiniche

Stephanie Reiniche, the Director of Technology, reported that there are still two staff positions open that should be filled soon. The TC roster update is underway with the intention of testing this fall. Mr. McGinn thanked staff and was glad that this is a partnership between staff and members.

7. NEW BUSINESS

- A. Mr. McGinn shared a power point thanking the outgoing members.
- B. Ms. Maston shared the subcommittee assignments for the next Subcommittee year. She requested that all incoming Standing Committee Chairs ask for a volunteer to serve on the reorg ad hoc and for any of the incoming Council members to let her know if they have an interest in serving on this ad hoc as well.

8. EXECUTIVE SESSION

There was an Executive Session for awarding of research projects approved by RAC. The following motions were approved:

- 1. That tentative research project **1789-TRP**, "*Optical and thermal performance of hollow glass block units*" be awarded to University of North Texas for a period of 26 months at a total cost to ASHRAE of \$172,835. ([Appendix RA-A](#))
- 2. That tentative research project **1815-TRP**, "*Integrating Occupant Behavior Data into Building Information Modeling for Performance Simulation*" be awarded to Carmel Software Corporation for a period of 24 months at a total cost to ASHRAE of 177,000. ([Appendix RA-B](#))
- 3. That tentative research project **1835-TRP**, "*Characterizing the Performance of Induced Flow Stacks*" be awarded to Ohio State University for a period of 24 months at a total cost to ASHRAE of \$249,547 ([Appendix RA-C](#))

9. NEXT MEETING

- A. Ms. Maston indicated that doodles would be sent out for a Tech Council Training meeting, there will be an Ops meeting to review MBOs and PASA changes, and a Tech Council Fall meeting shortly after the Ops meeting. A reminder was made

for Standing Committees to schedule their meetings and bring forward motions that will need to go to the Board at the Tech Council Fall Meeting.

10. ADJOURN

The meeting was adjourned at 11:30am EST