



MINUTES
BOARD OF DIRECTORS MEETING

LAS VEGAS, NV
Wednesday, February 2, 2022

Approved by the Board of Directors June 26, 2022.

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Wednesday, February 2, 2022

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PRINCIPAL APPROVED MOTIONS

Board of Directors Meeting
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No. - Pg.	Motion
1 - 2	<p>That Members Council recommends to the Board of Directors that ROB 1.201.027 Travel Reimbursement Policy, section 1.201.027.4 Conditions, be revised as shown below:</p> <ol style="list-style-type: none"> 5. When the member stays overnight at a destination <u>solely</u> to use a reduced fare, the traveler may request reimbursement for the fare paid plus the amount paid for the additional lodging and meal expenses. In those cases where more than one night's stay-over would give a reduced airfare, approval may be authorized by the Coordinating Officer. 6. If the most economical fare is of the type where a cost is involved for changes in travel plans, ASHRAE will reimburse the member for such costs where the change in travel plans results from unforeseen changes in the scheduled meeting or event <u>7. Reimbursement related to travel during a World Health Organization defined emergency (such as but not limited to, global pandemic)</u> <ol style="list-style-type: none"> <u>a. Approved travelers must comply with Public Health Guidance, follow all local regulatory and statutory requirements and recommendations for social distancing, wearing of masks and other personal protection equipment (PPE), administrative measures, circulation of occupants, reduced occupancy, hygiene, and sanitation.</u> <u>b. If a medical test is required by a government or other official entity in order for an approved individual to travel for ASHRAE, Society will cover the cost of that test.</u> <u>c. Applicable Society travel insurance coverage will be enforced. For example, ASHRAE's current travel insurance typically covers hospitalization costs, but will not cover any cost related to extended stays for medical reasons (cost of room and board, flight cancellation fees, loss of revenues, etc.).</u> <u>d. If an approved traveler needs to cancel travel arrangements, Society will not reimburse the associated costs. If airfare is purchased through ASHRAE's travel agency, then a cancelled flight may be credited to the individual for future travel. If an approved traveler makes travel arrangements outside of ASHRAE's travel agency, any cancellation fees will be the responsibility of the individual. Using Society's travel agency is voluntary, but strongly encouraged.</u> <u>e. Approved travelers who incur additional expenses assume responsibility for those costs.</u>
2 - 3	<p>That Members Council recommends to the Board of Directors that ROB 1.201.027 Travel Reimbursement Policy, section 1.201.027.4 Conditions, be revised as shown below:</p> <ol style="list-style-type: none"> 5. When the member stays overnight at a destination <u>solely</u> to use a reduced fare, the traveler may request reimbursement for the airfare paid plus the amount paid for the additional lodging and meal expenses. In those cases

	<p>where more than one night's stay-over would give a reduced airfare, approval may be authorized by the Coordinating Officer.</p> <p>6. If the most economical fare is of the type where a cost is involved for changes in travel plans, ASHRAE will reimburse the member for such costs where the change in travel plans results from unforeseen changes in the scheduled meeting or event.</p> <p>7. <u>Reimbursement related to travel during a World Health Organization defined emergency (such as but not limited to, global pandemic)</u></p> <p>a. <u>Approved travelers must comply with Public Health Guidance from ASHRAE's Epidemic Task Force, follow all local regulatory and statutory requirements and recommendations for social distancing, wearing of masks and other personal protection equipment (PPE), administrative measures, circulation of occupants, reduced occupancy, hygiene, and sanitation.</u></p> <p>b. <u>If a medical test is required by a government or other official entity in order for an approved individual to travel for ASHRAE, Society will cover the cost of that test.</u></p> <p>c. <u>Applicable Society travel insurance coverage will be enforced. For example, ASHRAE's current travel insurance typically covers hospitalization costs, but will not cover any cost related to extended stays for medical reasons (cost of room and board, flight cancellation fees, loss of revenues, etc.).</u></p> <p>d. <u>If an approved traveler needs to cancel travel arrangements, Society will not reimburse the associated costs. If airfare is purchased through ASHRAE's travel agency, then a cancelled flight may be credited to the individual for future travel. If an approved traveler makes travel arrangements outside of ASHRAE's travel agency, any cancellation fees will be the responsibility of the individual. Using Society's travel agency is voluntary, but strongly encouraged.</u></p> <p>e. <u>Approved travelers who incur additional expenses assume responsibility for those costs.</u></p>
3 - 4	That Members Council recommends to the Board of Directors that ASHRAE will provide a 10% discount to new members when five (5) or more employees of the same company sign up at the same time, this applies to full dues paying members.
4 - 4	That PEC recommends \$550,000 be provided from the General Reserve Fund for SY 21-22 and SY 22-23 to implement TFBD recommendations to the BOD, and which will be used to support education, publications, and communication on building decarbonization.
6 - 5	That MOTION 4 be amended as follows: PEC recommends <u>\$550,000 be provided from the Reserve Fund for SY 21-22 and SY 22-23 to implement TFBD recommendations to the BOD, and which will be used to support education, publications, and communication on building decarbonization.</u> approve funding the Task Force on Building Decarbonization for the rest of SY 21-22 with \$300K from the general budget for products that are being developed on the subject of decarbonization.
7 - 6	That MOTION 4 be amended as follows:

	PEC recommends \$550,000 be provided from the <u>General</u> Reserve Fund for SY 21-22 and SY 22-23 to implement TFBF recommendations to the BOD, and which will be used to support education, publications, and communication on building decarbonization.
8 - 6	That PEC recommends the BOD approve an addition to the Rules of the Board (ROB) as shown in ATTACHMENT A.
9 - 6	That PEC recommends the BOD approve an addition to the Rules of the Board (ROB) as shown in ATTACHMENT B.
10 - 7	That Standards Committee recommends that BSR BSR/ASHRAE/IES Addendum cb (<i>TPS Change</i>) to ANSI/ASHRAE/IES Standard 90.1- <i>Energy Standard for Buildings Except Low-Rise Residential Buildings</i> , be approved for publication.
11 - 7	That Standards Committee recommends that BSR/ASHRAE Standard 118.2-2006R, <i>Method of Testing for Rating Residential Water Heaters and Residential-Duty Commercial Water Heaters</i> , be approved for publication.
12 - 7	<p>That Standards Committee recommends that the following Title, Purpose and Scope (TPS) be approved and that a new Standard Project Committee be formed:</p> <p>Title: Evaluating Greenhouse Gas (GHG) and Carbon Emissions in Building Design, Construction and Operation.</p> <p>Purpose: This standard establishes how to measure and verify the GHG and carbon emissions of a building or group of buildings over the entire life-cycle. This standard provides consistent procedures and data to be referenced by other standards that address new and existing building performance.</p> <p>Scope: This standard covers:</p> <ol style="list-style-type: none"> 1. existing buildings, new buildings, groups of buildings, or portions of buildings 2. determination, including calculation methodology, and expression of the building(s) zero net GHG and zero net carbon status for building operation 3. GHG and carbon emissions associated with flows across the site boundary and off-site credited flows 4. embodied GHG and carbon emissions of building materials and systems. <p>This standard does not:</p> <ol style="list-style-type: none"> 1. establish building GHG and carbon emission goals or limits 2. provide design guidance or design requirements
13 - 9	That Technology Council recommends that ASHRAE jointly sponsor ASHRAE Standard 209, <i>Energy Simulation Aided Design for Buildings except Low-Rise Residential Buildings</i> , with IBPSA (International Building Performance Simulation Association), with ASHRAE as the lead cosponsor following ASHRAE’s ANSI development procedures.
14 - 9	<p>That The following motions be approved as a consent agenda:</p> <ul style="list-style-type: none"> ➤ Technology Council recommends that \$225,000 be added to the 2022-23 Society Year Technology Council proposed capital budget for the automation of the research process.

	<ul style="list-style-type: none"> ➤ Technology Council recommends to the Board of Directors that \$125,000 be added to the 22-23 Society Year Technology Council proposed capital budget for the automation of the Functional Group Evaluation and Functional Activity Forms.
15 - 9	<p>That The following motions be approved as a consent agenda:</p> <ul style="list-style-type: none"> ➤ Technology Council recommends that changes to PASA Section 7.2.4, <i>Voting Requirements for Standards Actions</i>, and <i>Definitions</i>, be approved as shown below: <p>PASA: 7.2.4 Voting Requirements for Standards Actions When a PC considers a vote to recommend publication/public review or publication with knowledge of unresolved objections of a new, revised, reaffirmed standard, or withdrawal of a standard or reaffirming a prior standards action vote, the PC shall comply with Sections 7.2.4.1-7.2.4.6.</p> <p>Definitions:</p> <p>standards action vote: an action recommending or approving publication or publication public review of a new, revised, or reaffirmed Standard, Guideline, or portion thereof or withdrawal of a published Standard, Guideline or portion thereof.</p> <p>Committee (ExCom). Each version of an Issue Brief will contain the statement, "This version expires one year after the date of approval." (07-01- 31-23B)</p> <p>1.300.002 Initiation: Any ASHRAE officer, member, committee or council, or any responsible outside entity may suggest issues for which an ASHRAE Position Document or Public Policy Issue Brief should be developed or may suggest whether existing ASHRAE documents should be revised, withdrawn, or rescinded.</p> <p>a. Position Document requests should be sent to the Technology Council chair for consideration. Position Documents are produced using the procedures and forms located in the Technology Council MOP. Position Documents are evaluated by Technology Council at intervals not to exceed 30 months.</p> <p>b. Public Policy Issue Brief requests are sent to Government Affairs Committee for consideration. Government Affairs Committee shall make recommendations to create a new PPIB; re-affirm, amend, or expire and remove existing PPIBs. <u>PPIBs</u></p>

~~are developed by the Government Affairs Committee. PPIB's are developed using the procedures located in the Government Affairs Committee MOP. PPIBs are evaluated by Government Affairs Committee at intervals not to exceed 12 months.~~

1.300.003 Approval

1.300.03.1 Technology Council recommends publication of Position Documents including changes, to the Board of Directors for approval.

1.300.03.2 Technology Council approves re-affirmation or withdrawal of Position Documents and reports to the Board of Directors for information.

1.300.03.3 The Board of Directors acts on Technology Council recommendations for publication of Position Documents.

~~1.300.03.4 GAC shall send newly developed, revised or reaffirmed PPIBs for After review and approval by Technology Council or its designee. After review by Technology Council or its designee, comments shall be sent to the GAC, and the GAC shall communicate to Technology Council how it has addressed comments received. GAC shall submit each revision, reaffirmation or withdrawal of existing PPIBs as an information item to ExCom. The GAC shall submit any new PPIBs Public Policy Issue Brief's shall be sent to ExCom for approval, along with background information describing how it addressed comments received from Technology Council or its designee. Upon approval, information copies shall be forwarded to the Board of Directors, Members Council and Technology Council.~~

1.300.004 Archiving, Publication and Distribution

1.300.004.1 Position Documents

A. The Technology Department shall maintain information concerning the history of development and approval of Position Documents.

B Position Documents are reviewed every 30 months and are automatically withdrawn if not reaffirmed or revised within 36 months of issue. Each version of a Position Document will contain the expiration date on the cover.

~~C. The Publications and Education Department shall be responsible for final editing, publication and distribution of Position Documents.~~

D. Current Position Documents will be posted on the ASHRAE website for free download.

E. Technology Council shall maintain the current list of Position Documents on the ASHRAE website.

1.300.004.2 Public Policy Issue Briefs

A. Government Affairs Committee shall manage the current list of Public Policy Issue Briefs by evaluating each at least on an annual basis and formally decide to re-affirm, amend, or let expire and remove, each

	<p>brief, subject to the approval of the Executive Committee of the ASHRAE Board of Directors.</p> <p>B. The Government Affairs Committee shall be responsible for archiving, publication and distribution of Public Policy Issue Briefs. <u>GAC shall maintain the current list of approved PPIBs on the ASHRAE website. Each version of a PPIB will contain a statement indicating when it expires and shall not be longer than one year after approval.</u></p> <p>➤ Technology Council recommends to the Board of Directors that 2.406.001 Scope and Purpose (EHC), be revised as shown:</p> <p>2.406.001 Scope and Purpose</p> <p>This committee shall be responsible for identifying major environmental health trends impacting the practice of HVAC&R, informing the ASHRAE leadership and membership of these trends and their potential impacts, and making recommendations on new activities and policies in response to these trends. In addition, this committee shall serve as a resource to the Society on activities and issues that relate to environmental health impacts of building environmental control technologies including but not limited to ventilation, and thermal conditioning. (ROB2.406.001).</p>
16 - 11	That Technology Council recommends to the Board of Directors that the ASHRAE PD on Indoor Carbon Dioxide be approved as shown in ATTACHMENT C.
17 - 12	That the Executive Committee recommends that the Board of Directors approve a meeting of the Board of Directors outside of North America in the Fall of 2022.
18 - 15	That Building EQ Committee recommends that the BOD approve up to \$15,000 for the addition of carbon metrics to the Building EQ Portal.
19 - 16	<p>That Society Rules Committee recommends to the BOD that the following revisions be made to the ROB as presented in ATTACHMENTS D-I:</p> <ul style="list-style-type: none"> A. That ROB Section 3.400 Manual of Procedures for Officers and Directors be removed from the ROB and considered as a separate document. B. That ROB Volume 3 be renamed as Standing Rules for Membership. C. That ROB Section 2.200.006 be removed from the ROB as the O&D MOP no longer exists in ROB Volume 3. D. That ROB Section 2.105.002.2 Approval of MOPs be revised as presented. E. That ROB Volume 4 be removed from the ROB and all items be relocated or deleted as presented. F. That new ROB Section 2.200.010 be added to 2.200 BOARD OF DIRECTORS to include who the BOD Elects.
20 - 17	That the draft ASHRAE Rules of Order document in ATTACHMENT J and the draft

	ASHRAE Quick Reference Guide in ATTACHMENT K be approved for use during ASHRAE meetings effective July 1, 2022.
21 - 18	That the agenda template in ATTACHMENT M be used as the starting document for BOD agendas.
22 - 19	That ROB 2.303.002.5 be edited as shown below: This council may approve research projects, within the Board-approved research budget, up to a total project cost not to exceed \$500,000 \$250,000 . Within this limit, this council may delegate project approval authority to the Research Administration Committee. <u>Technology Council may ask for BOD review on projects if they deem it necessary.</u>
23 - 19	That Technology Council, Standards Committee, the BOD Operational Streamlining Subcommittee, and SRC develop motion(s) to change the Standards Approval process such that the BOD is removed from providing approval for the majority of Standards.
24 - 19	That Technology Council, the BOD Operational Streamlining Subcommittee, and SRC make revisions to the ROB to have new Standards and Guidelines development approval reside with Technology Council in lieu of the BOD.
26 - 20	That Honors and Awards review which awards should be approved by the BOD due to the prestige of the award and propose changes to the ROB for presentation to the BOD for approval.
28 - 21	That MOTION 27: <i>That Vice Presidents be removed as Chair and Vice Chair of Pub and Ed Council and Tech Council be referred to the BOD Composition and Leadership Subcommittee.</i>
29 - 23	That ASHRAE become a member of the United Nations Global Alliance for Buildings and Construction (Global ABC).

ACTION ITEMS

Board of Directors Meeting
Wednesday, February 2, 2022

No. - Pg.	Responsibility	Summary of Action	Status	Goal Date
1 - 17	Staff	Distribute the most up to date version of the ROB and rules of order.		
2 - 22	Khankari, Glesne, Giesler, Gray, Rakheja	Develop recommendations for next steps to “make ASHRAE a household name,” as well as where in the present ASHRAE structure these actions could take place.		



MINUTES
BOARD OF DIRECTORS MEETING

Wednesday, February 2, 2022

MEMBERS PRESENT:

Mick Schwedler, President
Farooq Mehboob, President-Elect*
Ginger Scoggins, Treasurer
Don Brandt, Vice President
Dunstan Macauley, Vice President
Sarah Maston, Vice President
Tim McGinn, Vice President*
Jeff Littleton, Secretary
Steven Sill, Region I DRC*
Ronald Gagnon, Region II DRC
Mark Tome, Region III DRC
Steve Marek, Region IV DRC*
Doug Zentz, Region V DRC*
Rick Hermans, Region VI DRC
Chris Gray, Region VII DRC
Randy Schrecengost, Region VIII DRC*

Tyler Glesne, Region IX DRC
Devin Abellon, Region X DRC
Eileen Jensen, Region XI DRC
Robin Bryant, Region XII DRC
Apichit Lumlertpongpana, Region XIII DRC*
Andres Sepulveda, Region XIV DRC
Richie Mittal, RAL DRC*
Kelley Cramm, DAL
Wade Conlan, DAL
Dru Crawley, DAL
Ken Fulk, DAL
Art Giesler, DAL
Jaap Hogeling, DAL*
Kishor Khankari, DAL*
Adrienne Thomle, DAL
Ashish Rakheja, DAL*

*Indicates Virtual Attendee

GUESTS PRESENT:

Douglas Fick
Edwardo Maldonado
Alfred Uzokwe, Jr.
John Constantinide
Doug Cochrane
Akshay Bhargava
Zach DeLuke
Austin Hochstetler
Harrison Kesling
Billy Austin
Susanna Hanson
Trent Hunt

Jim Wolf
Bill McQuade
MJ Ayyampudur
Michael Patton
Vinod Vgnugopal
Aaley Bocker-Lauridson
Joshuah Vasudevan
Mary Giesler
Dennis Knight
Eman Sherif
Niss Feiner

Bryan Holcomb*
Chandra Sekhar*
Craig Wray*
Andy Persily*
Jim Lutz*
Heitor Tremea
Nohad Boudani
Darryl Boyce*
Bill Bahnfleth*
Steve Rosenstock*
David Underwood*

STAFF PRESENT:

Candace DeVaughn, Manager - Board Services
Chandrias Jolly, Assistant Mgr. - Board Services
Joyce Abrams, Director - Member Services
Vanita Gupta, Director - Marketing
Kim Mitchell, Chief Development Officer
Mark Owen, Director - Publications & Education
Alice Yates, Director - Govt. Affairs

Stephanie Reiniche, Director - Technology
Craig Wright, Director - Finance
Dustin Mason, Development Manager
Vickie Grant, Manager - Region Activities
Lilas Pratt, Manager - Special Projects
Connor Barbaree, Sr. Manager - Standards
Tony Giometti, Sr. Mgr. - Conference Programs *
Heather Kennedy, Editor - ASHRAE Handbook*

CALL TO ORDER

Mr. Schwedler called the meeting to order at 2:00 pm.

CODE OF ETHICS

Mr. Schwedler read the code of ethics statement and advised that the full code of ethics statement and core values is available online.

COMMITMENT TO CARE

Mr. Schwedler read the commitment to care.

ROLL CALL/INTRODUCTIONS

Roll call was conducted. Members, guests, and staff were in attendance as noted above.

REVIEW OF MEETING AGENDA

Mr. Schwedler reviewed the meeting agenda. 'Global ABC' was added to *New Business*.

OPEN SESSION - ADDRESSES TO THE BOARD OF DIRECTORS

There were no comments submitted or made.

COUNCIL REPORTS**MEMBERS COUNCIL**

Mr. Mehboob moved that

1. Members Council recommends to the Board of Directors that ROB 1.201.027 Travel Reimbursement Policy, section 1.201.027.4 Conditions, be revised as shown below:
 5. When the member stays overnight at a destination solely to use a reduced fare, the traveler may request reimbursement for the fare paid plus the amount paid for the additional lodging and meal expenses. In those cases where more than one night's stay-over would give a reduced airfare, approval may be authorized by the Coordinating Officer.
 6. If the most economical fare is of the type where a cost is involved for changes in travel plans, ASHRAE will reimburse the member for such costs where the change in travel plans results from unforeseen changes in the scheduled meeting or event
 7. Reimbursement related to travel during a World Health Organization defined emergency (such as but not limited to, global pandemic)
 - a. Approved travelers must comply with Public Health Guidance from ASHRAE's Epidemic Task Force, follow all local regulatory and statutory requirements and recommendations for social distancing, wearing of masks and other personal protection equipment (PPE), administrative measures, circulation of occupants, reduced occupancy, hygiene, and sanitation.
 - b. If a medical test is required by a government or other official entity in order for an approved individual to travel for ASHRAE, Society will cover the cost of that test.
 - c. Applicable Society travel insurance coverage will be enforced. For example, ASHRAE's current travel insurance typically covers hospitalization costs, but will

- not cover any cost related to extended stays for medical reasons (cost of room and board, flight cancellation fees, loss of revenues, etc.).
- d. If an approved traveler needs to cancel travel arrangements, Society will not reimburse the associated costs. If airfare is purchased through ASHRAE's travel agency, then a cancelled flight may be credited to the individual for future travel. If an approved traveler makes travel arrangements outside of ASHRAE's travel agency, any cancellation fees will be the responsibility of the individual. Using Society's travel agency is voluntary, but strongly encouraged.
- e. Approved travelers who incur additional expenses assume responsibility for those costs.

Mr. Mehboob reported that the Board of Directors assigned an action item to Members Council and the Society Rules Committee (SRC) to update the current transportation policy to address how COVID related risks are disclosed and how costs are reimbursed. Expenses as a result of quarantine should also be addressed. The above motion was reviewed by SRC.

There was discussion of the inclusion of the work and recommendations of the ETF in the policy.

Mr. Giesler moved and Mr. Gagnon seconded that

2. MOTION 1 be amended as shown below:

Members Council recommends to the Board of Directors that ROB 1.201.027 Travel Reimbursement Policy, section 1.201.027.4 Conditions, be revised as shown below:

5. When the member stays overnight at a destination solely to use a reduced fare, the traveler may request reimbursement for the airfare paid plus the amount paid for the additional lodging and meal expenses. In those cases where more than one night's stay-over would give a reduced airfare, approval may be authorized by the Coordinating Officer.
6. If the most economical fare is of the type where a cost is involved for changes in travel plans, ASHRAE will reimburse the member for such costs where the change in travel plans results from unforeseen changes in the scheduled meeting or event.
7. Reimbursement related to travel during a World Health Organization defined emergency (such as but not limited to, global pandemic)
- a. Approved travelers must comply with Public Health Guidance from ASHRAE's Epidemic Task Force, follow all local regulatory and statutory requirements and recommendations for social distancing, wearing of masks and other personal protection equipment (PPE), administrative measures, circulation of occupants, reduced occupancy, hygiene, and sanitation.
- b. If a medical test is required by a government or other official entity in order for an approved individual to travel for ASHRAE, Society will cover the cost of that test.
- c. Applicable Society travel insurance coverage will be enforced. For example, ASHRAE's current travel insurance typically covers hospitalization costs, but will not cover any cost related to extended stays for medical reasons (cost of room and board, flight cancellation fees, loss of revenues, etc.).
- d. If an approved traveler needs to cancel travel arrangements, Society will not reimburse the associated costs. If airfare is purchased through ASHRAE's travel agency, then a cancelled flight may be credited to the individual for future travel. If an approved traveler makes travel arrangements outside of ASHRAE's travel

agency, any cancellation fees will be the responsibility of the individual. Using Society's travel agency is voluntary, but strongly encouraged.

e. Approved travelers who incur additional expenses assume responsibility for those costs.

Ms. Cramm spoke against the amendment. She stated that the policy should reference who the public health guidance is coming from.

Mr. Giesler responded that by leaving it open, it allows members to receive guidance from the appropriate bodies in their area or country.

MOTION 2 PASSED (Voice Vote, CNV). Ms. Cramm voted against the motion.

AMENDED MOTION 1 PASSED (Voice Vote, CNV). Ms. Cramm voted against the motion.

Mr. Mehboob moved that

3. Members Council recommends to the Board of Directors that ASHRAE will provide a 10% discount to new members when five (5) or more employees of the same company sign up at the same time, this applies to full dues paying members.

Mr. Mehboob reported that this action will help strengthen the membership numbers in these challenging times. ASHRAE already has in place a similar concept for group discounts on training courses.

He stated that this is intended to be a one-time discount for new members. Only full dues paying members will receive the discount and the intention is that all five employees be dues paying members.

Ms. Abrams added that the intent is that the five members sign up in one transaction.

MOTION 3 PASSED (Unanimous Voice Vote, CNV).

Mr. Mehboob reported that the Council approved the charter of three new student branches in Region X and RAL.

He reported that Members Council reviewed the process for tracking, assigning, and responding to CRC motions. With the help of staff, a new process was developed and was attached to the Council's report to the BOD. Using the new process, members will get responses within six months. He thanked staff as the burden of the new process will fall on their shoulders.

PUBLISHING AND EDUCATION COUNCIL

Mr. Brandt moved that

4. PEC recommends the BOD approve funding the Task Force on Building Decarbonization for the rest of SY 21-22 with \$300K from the general budget for products that are being developed on the subject of decarbonization.

Mr. Brandt reported that the task force has not been funded since being formed in February 2021. As they have developed content it has been put on hold. The immediate need is PTAR on Smart Grid - building interface, starting a decarbonization standard and adding addendum to Standards 90.1 and 90.2 (not necessarily in order of priority). The funding will be split between the Publishing and

Education and Technology departments. The motion was discussed and reviewed by Professional Development Fiscal Subcommittees and then approved by the PEC.

Mr. Mehboob stated that the motion states that the funding is for the TFBD. The Task Force is not a standing body, so the funding should go to the Councils to actually do the work. He suggested that the motion be amended slightly.

Mr. Mehboob moved and Mr. Macauley amended that

5. MOTION 4 be amended as follows:

PEC recommends the BOD approve funding the products and services for the Task Force on Building Decarbonization for the rest of SY 21-22 with \$300K from the general budget for products that are being developed on the subject of decarbonization.

Mr. Brandt spoke against the amendment. He stated that the original motion references products.

Mr. Hermans spoke in favor of the amendment. He stated that some of what is being suggested in the background can't be done.

Ms. Cramm spoke against the amendment and stated that it is very confusing and that the additional language is not necessary.

MOTION 5 FAILED (14:15:0, CNV).

Discussion on the original motion resumed.

Mr. Gray spoke in favor of the motion.

Mr. Gray moved and Ms. Bryant seconded that

6. MOTION 4 be amended as follows:

PEC recommends \$550,000 be provided from the Reserve Fund for SY 21-22 and SY 22-23 to implement TFBD recommendations to the BOD, and which will be used to support education, publications, and communication on building decarbonization. ~~approve funding the Task Force on Building Decarbonization for the rest of SY 21-22 with \$300K from the general budget for products that are being developed on the subject of decarbonization.~~

Mr. Gray reported that the Task Force has not been funded since being formed in February 2021. As they have developed content it has been put on hold and will be used to support education, publications, and communication on building decarbonization.

This motion was approved by the TFBD on a unanimous vote of 8-0-0, with both co-chairs voting.

Mr. Mehboob spoke in favor of the amended motion. He stated that language is a lot clearer and addresses concerns that many had.

MOTION 6 PASSED (Unanimous Voice Vote, CNV).

There was discussion of amended motion 4.

Mr. Mehboob asked why the funds needed to come from the Reserve Fund. Will that affect balances of the Reserve Fund?

Ms. Scoggins responded that if the funds come from the reserves and are not tied to operating expenses, unused funds could be rolled over year to year. She also reported that the reserves are nearly back to the 2/3 requirement.

Ms. Scoggins moved and Mr. Giesler seconded that

7. MOTION 4 be amended as follows:

PEC recommends \$550,000 be provided from the General Reserve Fund for SY 21-22 and SY 22-23 to implement TFBD recommendations to the BOD, and which will be used to support education, publications, and communication on building decarbonization.

MOTION 7 PASSED (Unanimous Voice Vote, CNV).

There was discussion of amended MOTION 4.

Mr. Knight spoke in favor of the motion.

Mr. Hermans asked if the effect of the motion would be to draw the \$550K from the Reserve Fund and if not spent roll over to the next year?

Ms. Scoggins responded that in the past, when funds were requested and not used in the year they were requested, they would roll over to the next year for use on that specific initiative.

AMENDED MOTION 4 PASSED (Unanimous Voice Vote, CNV).

Mr. Brandt moved that

8. PEC recommends the BOD approve an addition to the Rules of the Board (ROB) as shown in ATTACHMENT A.

Mr. Brandt reported that the proposed edits are to a section of the ROB that addresses how to list member's names on business cards. This can only be controlled in ASHRAE publications.

The motion has been reviewed by SRC.

MOTION 8 PASSED (Unanimous Voice Vote, CNV).

Mr. Brandt moved that

9. PEC recommends the BOD approve an addition to the Rules of the Board (ROB) as shown in ATTACHMENT B.

Mr. Brandt reported that the motion came up from the Publishing Committee. The proposed edits remove references to *High Performance Buildings* magazine. This is a clean-up motion and has been reviewed by SRC.

MOTION 9 PASSED (Unanimous Voice vote, CNV).

Mr. Brandt reported that the Council dealt with a number of referrals from other councils; the results of that work were included in the Council's report to the BOD. Reports from committees reporting to PEC, including updates on their MBOs, is also included in the report.

TECHNOLOGY COUNCIL

Ms. Maston reported that the publication motions presented below are addenda that have unresolved objectors, negative project committee votes with reason, or a threat of legal action. These motions are preceded by formally voted recommendations from the project committees and Standards Committee. The rules do not require a vote from Technology Council. Appeals procedures now allow for consideration of an appeal of a BOD standards action or inaction only if the negative vote or unresolved comment is based solely upon procedural grounds.

A reminder to Board members - members are to review these motions for adherence to ASHRAE's Procedures for Standards Actions (PASA) and ANSI Essential Requirements and not technical content. If the BOD disapproves a Standards Committee Document for publication, please minute the detailed reason(s) for the record.

A summary of unresolved commenters and/or negative project committee votes on these publication drafts is included in the analysis sheets that were distributed prior to the meeting. By default, all Standards Committee Documents will be processed by our ANSI Audited Designator procedures unless otherwise indicated by the Board. In all cases, the fiscal impact for publication drafts is within existing budgets.

Ms. Maston moved that

- 10.** Standards Committee recommends that BSR BSR/ASHRAE/IES Addendum cb (*TPS Change*) to ANSI/ASHRAE/IES Standard 90.1- *Energy Standard for Buildings Except Low-Rise Residential Buildings*, be approved for publication.

MOTION 10 PASSED (Voice Vote, CNV). Mr. Hermans abstained because he was a past member of 90.1 and was an unresolved commenter.

Ms. Maston moved that

- 11.** Standards Committee recommends that BSR/ASHRAE Standard 118.2-2006R, *Method of Testing for Rating Residential Water Heaters and Residential-Duty Commercial Water Heaters*, be approved for publication.

MOTION 11 PASSED (Unanimous Voice Vote, CNV).

Ms. Maston moved that

- 12.** Standards Committee recommends that the following Title, Purpose and Scope (TPS) be approved and that a new Standard Project Committee be formed:

Title: Evaluating Greenhouse Gas (GHG) and Carbon Emissions in Building Design, Construction and Operation.

Purpose: This standard establishes how to measure and verify the GHG and carbon emissions of a building or group of buildings over the entire life-cycle. This standard provides consistent procedures and data to be referenced by other standards that address new and existing building performance.

Scope:

This standard covers:

1. existing buildings, new buildings, groups of buildings, or portions of buildings
2. determination, including calculation methodology, and expression of the building(s) zero net GHG and zero net carbon status for building operation
3. GHG and carbon emissions associated with flows across the site boundary and off-site credited flows
4. embodied GHG and carbon emissions of building materials and systems.

This standard does not:

1. establish building GHG and carbon emission goals or limits
2. provide design guidance or design requirements

Mr. Mehboob stated that he was generally in favor of the motion. He stated that Society's partner ICC is developing a decarbonization standard and Mr. Littleton reported that they are interested in partnering with Society on that standard. Is this something we are doing on our own? Will this work be done in house, or will consultants be hired?

Ms. Maston responded that her understanding is that the work will be done independently. Will continue to work with ICC on an agreement. Society is going in our own direction while still investigating ways to further partner with ICC.

She reported that, if approved, this TPS would follow the normal standards approval process.

Ms. Reiniche suggested that funds could be requested from the recently approved motion to expedite the standard development process.

Mr. Mehboob asked the following questions - How long do we think those negotiations will go on with ICC? How much of a deep dive into those approved funds would this motion require? Do we not have members who can do this work?

Mr. Schwedler responded that a number of people met with ICC. ICC plans to have their CEO contact Mr. Littleton. It is unclear how long negotiations will take. The TPS would go through the typical standards approval process. From a cost standpoint, there will be both staff and member time.

Mr. Hermans suggested that approval of this TPS could negatively impact negotiations with ICC.

MOTION 12 PASSED (Unanimous Voice Vote, CNV). Mr. Mehboob abstained. He stated that he was not clear on the cost for hiring outside consultants or on the status of negotiations with ICC.

Ms. Maston moved that

13. Technology Council recommends that ASHRAE jointly sponsor ASHRAE Standard 209, *Energy Simulation Aided Design for Buildings except Low-Rise Residential Buildings*, with IBPSA (International Building Performance Simulation Association), with ASHRAE as the lead cosponsor following ASHRAE's ANSI development procedures.

MOTION 13 PASSED (Voice Vote, CNV). Mr. Crawley abstained because he is a member of the IBPSA Board.

Ms. Maston moved that

14. The following motions be approved as a consent agenda:
 - Technology Council recommends that \$225,000 be added to the 2022-23 Society Year Technology Council proposed capital budget for the automation of the research process.
 - Technology Council recommends to the Board of Directors that \$125,000 be added to the 22-23 Society Year Technology Council proposed capital budget for the automation of the Functional Group Evaluation and Functional Activity Forms.

Mr. Mehboob spoke in favor of the motion. He suggested that Society should automate processes and get away from the manual processes and the time and effort they take.

MOTION 14 PASSED (Unanimous Voice Vote, CNV).

Ms. Maston moved that

15. The following motions be approved as a consent agenda:
 - Technology Council recommends that changes to PASA Section 7.2.4, *Voting Requirements for Standards Actions*, and *Definitions*, be approved as shown below:

PASA:
7.2.4 Voting Requirements for Standards Actions
When a PC considers a vote to recommend publication/public review or publication with knowledge of unresolved objections of a new, revised, reaffirmed standard, or withdrawal of a standard or reaffirming a prior standards action vote, the PC shall comply with Sections 7.2.4.1-7.2.4.6.

Definitions:
standards action vote: an action recommending or approving publication or publication public review of a new, revised, or reaffirmed Standard, Guideline, or portion thereof or withdrawal of a published Standard, Guideline or portion thereof.

~~Committee (ExCom). Each version of an Issue Brief will contain the statement, "This version expires one year after the date of approval." (07-01- 31-23B)~~

1.300.002 Initiation: Any ASHRAE officer, member, committee or council, or any responsible outside entity may suggest issues for which an ASHRAE Position Document or Public Policy Issue Brief should be developed or may suggest whether existing ASHRAE documents should be revised, withdrawn, or rescinded.

a. Position Document requests should be sent to the Technology Council chair for consideration. Position Documents are produced using the procedures and forms located in the Technology Council MOP. ~~Position Documents are evaluated by Technology Council at intervals not to exceed 30 months.~~

b. Public Policy Issue Brief requests are sent to Government Affairs Committee for consideration. Government Affairs Committee shall make recommendations to create a new PPIB; re-affirm, amend, or expire and remove existing PPIBs. PPIBs are developed by the Government Affairs Committee. PPIB's are developed using the procedures located in the Government Affairs Committee MOP. PPIBs are evaluated by Government Affairs Committee at intervals not to exceed 12 months.

1.300.003 Approval

1.300.03.1 Technology Council recommends publication of Position Documents including changes, to the Board of Directors for approval.

1.300.03.2 Technology Council approves re-affirmation or withdrawal of Position Documents and reports to the Board of Directors for information.

1.300.03.3 The Board of Directors acts on Technology Council recommendations for publication of Position Documents.

1.300.03.4 GAC shall send newly developed, revised or reaffirmed PPIBs for After review and approval by Technology Council or its designee. After review by Technology Council or its designee, comments shall be sent to the GAC, and the GAC shall communicate to Technology Council how it has addressed comments received. GAC shall submit each revision, reaffirmation or withdrawal of existing PPIBs as an information item to ExCom. The GAC shall submit any new PPIBs Public Policy Issue Brief's shall be sent to ExCom for approval, along with background information describing how it addressed comments received from Technology Council or its designee. Upon approval, information copies shall be forwarded to the Board of Directors, Members Council and Technology Council.

1.300.004 Archiving, Publication and Distribution

1.300.004.1 Position Documents

A. The Technology Department shall maintain information concerning the history of development and approval of Position Documents.

B. Position Documents are reviewed every 30 months and are automatically withdrawn if not reaffirmed or revised within 36 months of issue. Each version of a Position Document will contain the expiration date on the cover.

~~C. The Publications and Education Department shall be responsible for final editing, publication and distribution of Position Documents.~~

D. Current Position Documents will be posted on the ASHRAE website for free download.

E. Technology Council shall maintain the current list of Position Documents on the ASHRAE website.

1.300.004.2 Public Policy Issue Briefs

A. Government Affairs Committee shall manage the current list of Public Policy Issue Briefs by evaluating each at least on an annual basis and formally decide to re-affirm, amend, or let expire and remove, each brief, subject to the approval of the Executive Committee of the ASHRAE Board of Directors.

B. The Government Affairs Committee shall be responsible for archiving, publication and distribution of Public Policy Issue Briefs. GAC shall maintain the current list of approved PPIBs on the ASHRAE website. Each version of a PPIB will contain a statement indicating when it expires and shall not be longer than one year after approval.

- Technology Council recommends to the Board of Directors that 2.406.001 Scope and Purpose (EHC), be revised as shown:

2.406.001 Scope and Purpose

This committee shall be responsible for identifying major environmental health trends impacting the practice of HVAC&R, informing the ASHRAE leadership and membership of these trends and their potential impacts, and making recommendations on new activities and policies in response to these trends. In addition, this committee shall serve as a resource to the Society on activities and issues that relate to environmental health impacts of building environmental control technologies including but not limited to ventilation, and thermal conditioning. (ROB2.406.001).

MOTION 15 PASSED (Unanimous Voice Vote, CNV).

Ms. Maston moved that

16. Technology Council recommends to the Board of Directors that the ASHRAE PD on Indoor Carbon Dioxide be approved as shown in ATTACHMENT C.

MOTION 16 PASSED (Unanimous Voice Vote, CNV).

Ms. Maston reported that the Council is working with the ETF as things are sunset and transferred to TCs and standing committees.

She reported that the Research Strategic Plan has been released for open consumption. RAC is working with Tech Council to put together a monitoring plan. RAC is also working with the Planning Committee on how to execute the plan.

Mr. McGinn thanked Ms. Maston for chairing the meeting on his behalf; he participated in the meeting remotely but felt that it was best for the chair to be in the room. He stated that Ms. Maston did a great job.

COMMITTEE REPORTS

DEVELOPMENT COMMITTEE

Mr. Wolf reported that the Committee had no recommendations for the BOD's consideration.

He reported that as the Committee goes out in search of future funding that it is very important that all of Society leadership is on board and supporting the committee's activities. Currently 29 of the 32 BOD members have made pledges or contributions. All BOD members are encouraged to contribute. Being able to tell potential funders that 100% of the ASHRAE BOD contributes is very beneficial.

EXECUTIVE COMMITTEE

JANUARY 29, 2022

Mr. Schwedler reported that ExCom had no recommendations for the BOD's consideration. Information items were included in the report attached to the agenda for the BOD's review.

FEBRUARY 2, 2022

Mr. Schwedler moved that

- 17.** The Executive Committee recommends that the Board of Directors approve a meeting of the Board of Directors outside of North America in the Fall of 2022.

Mr. Schwedler reported that ASHRAE has not held a BOD meeting outside of North America since 2016. It is important for ASHRAE to demonstrate its commitment to its global mission by being an active partner outside of North America. Moreover, an international BOD meeting would expand the BOD's vision and provide a new perspective to its strategic decisions.

This motion passed ExCom unanimously.

Mr. Gagnon spoke against the motion. He expressed concern with traveling to Egypt and Turkey and stated that the Canadian government has issued a travel advisory for those two countries, advising that citizens not travel there at this time.

He stated that Ukraine is not far from Turkey and asked if it was wise to plan the meeting for Fall 2022.

Mr. Mehboob reported that the proposal for an international BOD meeting has been discussed extensively at PEAC and AASA. Details and costs of the proposals have also been discussed with Mr. Littleton.

He stated that it is important for the BOD to understand dynamics of grassroots around the world and would be an opportunity for BOD members to mentor grassroots members. The proposed meeting would be in conjunction with the RAL CRC. RAL CRC attendees will be braving the challenges of the day.

AASA has endorsed the proposal.

Ms. Scoggins reported that when there was an international BOD meeting in Bangkok she was on the fence. After attending she learned so much about other regions outside of North America.

Mr. Sepulveda spoke in favor of the motion. He stated that an international BOD meeting would demonstrate that ASHRAE is truly global; the meeting is relevant and would help Society grow.

Mr. Gray spoke in favor of the motion. He stated that it is important to consider that 20% of the Society's membership is outside of the US. He expressed agreement with conducting a meeting outside of North America every five years.

Mr. Zentz stated that he was in favor of the spirit of the motion, but not the execution. He stated that ASHRAE is a volunteer organization and the views of volunteers that may not be comfortable traveling to certain parts of the world should be respected. He suggested that there would likely be additional unanticipated costs and asked where those additional funds would come from.

Mr. Mehboob responded that the proposed meeting would be hybrid. He stated that he was unable to travel to Las Vegas and that there are a lot of people from around the world who have trouble traveling to North America.

He reported that if there are any additional costs beyond what has been requested in the motion that RAL will cover them. Society will not be charged more than \$100,000.

Mr. Fulk spoke in favor of the spirit of the motion but spoke against the motion because of the time commitment. He expressed concern if the proposal was the most effective use of BOD member's time. He stated that it would be a total of eight days for BOD members to attend and asked if something could be done to adjust the schedule to make the time spent there shorter. He stated that he wants to be respectful of time and expenses as much as possible.

Mr. Rakheja spoke in favor of the motion. He stated that the global summit that is planned in conjunction with the RAL CRC and BOD meeting would provide visibility. He stated that he did not anticipate travel risks and that members will be attending from all over the world. He spoke in favor of compressing the timeline and stated that being away from home and work for a week is difficult.

Mr. Lumlertpongpana spoke in favor of the motion. He stated that he was the General Chair of the 2016 super CRC and expressed that it was time for the new BOD to meet international Society leaders, learn different cultures, and experience diversity.

Mr. Giesler stated that he was in favor of the idea of the motion but had concerns that not all of the costs had been considered.

Ms. Bryant spoke in favor of the intent of the motion. She expressed that she loved the diversity and inclusiveness that an international BOD meeting would bring. She suggested that the BOD meeting

could be done in conjunction with the decarbonization conference in Athens and add more power behind the Society's decarbonization mission. She stated that hosting the meeting in Athens could also help to alleviate some of the concerns expressed with traveling to that area of the world.

Ms. Thomle stated that she was in favor of the intent of the motion but that she would be voting against it. She stated that the proposed locations still have very high COVID cases, especially Egypt. She stated that the US State Department advises against traveling to Turkey and Egypt. She expressed that she would not be comfortable traveling to either country alone.

Mr. Khankari spoke in favor of the motion. He suggested that BOD members that are also DLs could make official presentations.

Ms. Cramm stated that she was on the fence about the motion. She agreed with Mr. Fulk and Mr. Zentz's concerns. She stated that she gives a lot of time to ASHRAE and it would be a huge stretch to ask her employer to pay for another week of the year where she won't be working. She expressed her opinion that this was an extravagant proposal and was borderline hypocritical considering recent decarbonization discussions.

Mr. Glesne spoke in favor of the motion. He agreed with Ms. Bryant's suggestion and stated that it would be an incredible eye opener for most of the BOD.

Mr. Mittal stated that a lot of work has been done on this proposal.

Mr. Feiner stated that if Society is a global organization, then the BOD should travel the globe. He stated that if only 20% of the BOD attends the meeting the optics would be quite poor. He stated that money is finite but if that is the impediment the cost associated with other locations is also very poor. He stated that there needs to be consideration of how the membership of RAL perceives this decision.

Ms. Maston stated that she was impressed by the amount of coordination and effort to make this more than just a BOD meeting. She stated that it would be a longer period of time, but that this meeting would take the place of the fall BOD meeting at HQ. She stated that she learned so much this past year virtually attending RAL and Region XIII CRCs and can only imagine how much more she would learn from attending the RAL CRC in person.

Mr. Hermans spoke against the motion. He stated that he felt the estimated costs were too low. He suggested that a larger portion of ExCom attend the CRC but stated that sending the entire BOD was probably not a good idea.

Mr. Abellon stated that he was generally in favor of the motion. He stated that he had the opportunity to attend the mega CRC in Bangkok and it was eye opening to see the diversity, different cultures, and how our members around the world work through different and similar issues.

He stated that it would take a lot of time of North Americans to participate but Society asks that of our international volunteers; doesn't feel right that our time is seen as more valuable.

Mr. Gray spoke in favor of the motion. He stated that the BOD needs to be sensitive that we ask our non-North American members to travel to all of the meetings and conferences held in North America.

He suggested that the BOD, by approval of this motion, share in the struggle of the journey one time, especially in light of the DEI initiatives that members are being asked to embrace.

Mr. Conlan spoke in favor of the motion. He stated that the background references the desire for spouses to attend. He stated that his kids are still in high school, so his spouse would not be able to attend; he suggested that other BOD members might be in a similar position. He stated that BOD members are in all different stages of life, and it would be nice if the meeting was scheduled while school is not in session.

Mr. Knight spoke in favor of the motion. He stated that he has been fortunate to be a DL for over ten years and has had the opportunity to travel and meet international members. He stated that over 90% of the humanity we want to serve lives outside of North America; 88% of the population growth that will occur over the next 30 years will be outside of North America. He expressed his opinion that it is essential to have an international BOD meeting to serve humanity and grow this organization.

Ms. Scoggins spoke in favor of the motion. She suggested that to limit the length of time BOD members will need to travel and spend away from work, attendance at the summit could be limited to ExCom and BOD optional.

Mr. Mehboob responded that Ms. Scoggins' suggestions are perfectly doable and that the schedule could be reorganized. He stated that the meeting will be hybrid and it is understandable that some members may not be able to attend. He stated that a mega RAL and Region XIV CRC was investigated but to conduct a meeting in Europe would have cost around 1,100 Euros per person which was not affordable for developing economies members.

He stated that the BOD will not be asked for additional funds. RAL was waiting on guidance from the BOD before dates were selected.

Mr. Glesne stated that personal barriers or concerns do not have to do with the BOD or Society. He stated that an international BOD meeting would be difficult but the BOD owes it to the international members to at least try.

MOTION 17 PASSED (21:4:4, CNV).

BUILDING EQ

Mr. McGinn moved that

- 18.** Building EQ Committee recommends that the BOD approve up to \$15,000 for the addition of carbon metrics to the Building EQ Portal.

Mr. Constantinide reported that the fiscal impact would be spread out over two years, \$7,500 this Society Year and \$7,500 next Society Year.

It was asked if the proposed initiative could be tied into the TFBD. Mr. Constantinide responded that that the Committee felt this was the most appropriate as the carbon metric is an expansion to the BEQ scope.

Ms. Scoggins spoke in favor of the motion. She stated it was a fantastic idea and not a lot of money.

Mr. Gray spoke in favor of the motion. He stated that the work of the TFBF is focused on creating common definitions to ensure consistency.

Mr. Constantinide reported that one downside would be that this motion would not create a new certification, but it could be used for existing certifications. He stated that Society may be the first to have a carbon metric in a rating system. If the motion passes, it can be incorporated into Building EQ and no other rating system would have it.

Mr. Conlan spoke in favor of the motion. He stated that as a user of Building EQ he thinks it would be a fantastic addition.

Mr. Gagnon spoke in favor of the motion. He stated that carbon metrics are needed in Building EQ.

MOTION 18 PASSED (Unanimous Voice Vote, CNV).

SOCIETY RULES COMMITTEE

Mr. Fick reported that the following motion is being brought forward by the Society Rules Committee in an effort to streamline the ROB. The motion includes multiple steps that have been taken by the committee in order to restructure the ROB in a more simplified format. For ease of understanding, the multiple steps taken by the committee will be presented in alphabetical order. Please note that defeat of one or more parts of the motion may impact the approval and implementation of others. As a result, it is recommended that the following be approved as a consent motion.

Mr. Brandt moved that

19. Society Rules Committee recommends to the BOD that the following revisions be made to the ROB as presented in ATTACHMENTS D-I:
 - A. That ROB Section 3.400 Manual of Procedures for Officers and Directors be removed from the ROB and considered as a separate document.
 - B. That ROB Volume 3 be renamed as Standing Rules for Membership.
 - C. That ROB Section 2.200.006 be removed from the ROB as the O&D MOP no longer exists in ROB Volume 3.
 - D. That ROB Section 2.105.002.2 Approval of MOPs be revised as presented.
 - E. That ROB Volume 4 be removed from the ROB and all items be relocated or deleted as presented.
 - F. That new ROB Section 2.200.010 be added to 2.200 BOARD OF DIRECTORS to include who the BOD Elects.

Members spoke in favor of the motion. It was stated that the motion would shorten, simplify, and streamline the ROB.

MOTION 19 PASSED (Unanimous Voice Vote, CNV).

Mr. Brandt moved that

- 20.** The draft ASHRAE Rules of Order document in ATTACHMENT J and the draft ASHRAE Quick Reference Guide in ATTACHMENT K be approved for use during ASHRAE meetings effective July 1, 2022.

Mr. Brandt reported that this was a multi-year effort from SRC.

Members spoke in favor of the motion. It was asked why the implementation date wasn't until July 1st. Mr. Fick responded that waiting until the new Society Year allows for reasonable and thought-out implementation.

MOTION 20 PASSED (Unanimous Voice Vote, CNV).

Staff will distribute the most up to date version of the ROB and rules of order.

AI - 1

Mr. Fick stated that he appreciated the BOD's trust in SRC. He reported that the Committee will have a revised MOP before the end of the Society Year. The Committee also has a goal to work with the councils to update their MOPs, using the new BOD approved format.

AUDIT COMMITTEE

Mr. Fulk expressed appreciation to the members of the Committee. He reported that Jones and Kolb presented the Committee a clean audit and no BOD action was required.

PRESIDENTIAL AD HOC COMMITTEE AND BOD TASK GROUP REPORTS**DECARBONIZATION THINK TANK**

Mr. Wolf expressed thanks to the BOD for giving the Think Tank an opportunity to share their big idea for the decarbonization of buildings. He reported that group feels it is a great opportunity for Society. ASHRAE is well known and respected for everything it has done in the building technology area, especially energy efficiency.

If Society had the resources, what could it do in the area of decarbonization? This is the question the think tank has been addressing.

The Global Building Decarbonization Action Initiative is an initiative to prompt action beyond what would otherwise occur. The Think Tank believes this initiative will be capable of raising money to assist Society to get further into decarbonization and position it as a leader in the decarbonization of buildings.

He suggested that Society can become the respected source of global decarbonization information tools and advocacy.

He stated that owners need a lot of help with goals and set targets and they aren't sure what they should do.

Mr. Wolf reported that this plan will be used to develop a proposal and present it to potential donors. He stated that the larger goal is organize the built environment to meet a goal that would be impossible to achieve otherwise.

It was suggested that the Society has a unique mission statement and that the mission statement should be incorporated into this presentation; incorporating what distinguishes Society from other organizations.

Mr. Wolf was asked about the anticipated timeline. He responded that the hope is that funding will be secured before the end of the current fiscal year. Or at least be in the position to know that funds are pledged.

Ms. Mitchell reported that the Development Committee feels that proposals will be received before the end of the current Society Year as long as the Think Tank continues to move forward with solid plans and has a budget. At that point, any plans would be at the mercy of the funding cycles of donors.

Mr. Mehboob stated that he is a believer of the capabilities of the Development team and that the proposal is a good one. He asked if the Think Tank was working closely with the TFBD as that group would be well positioned to provide specifics.

Mr. Wolf responded that three Task Force members (Don Colliver, Ginger Scoggins, and Kent Peterson) also serve on the TFBD and the two groups are working very closely together.

He reported that there is no reason why funds couldn't be obtained from government entities as well as private donors.

He stated that this is an exciting area to be working in and that the work is absolutely necessary.

BOD COMPOSITION AND LEADERSHIP SUBCOMMITTEE

Mr. Macauley reported. The full presentation is included in ATTACHMENT L.

He reported that subcommittee members completed a survey to understand and rank the roles and responsibilities of the BOD.

He reported that the subcommittee is considering three proposed options and hopes to have interim recommendations for the BOD's consideration in the spring.

BOD OPERATIONAL STREAMLINING SUBCOMMITTEE

Mr. Giesler reported. The full report is included in ATTACHMENT M.

He reported that the subcommittee has been investigating ways to make the BOD more effective, assuming the BOD size will not change.

Mr. Giesler moved that

21. The agenda template in ATTACHMENT M be used as the starting document for BOD agendas.

MOTION 21 PASSED (Unanimous Voice Vote, CNV).

Mr. Giesler moved that

22. ROB 2.303.002.5 be edited as shown below:

This council may approve research projects, within the Board-approved research budget, up to a total project cost not to exceed \$500,000 ~~\$250,000~~. Within this limit, this council may delegate project approval authority to the Research Administration Committee. Technology Council may ask for BOD review on projects if they deem it necessary.

MOTION 22 PASSED (Unanimous Voice Vote, CNV).

Mr. Giesler moved that

23. Technology Council, Standards Committee, the BOD Operational Streamlining Subcommittee, and SRC develop motion(s) to change the Standards Approval process such that the BOD is removed from providing approval for the majority of Standards.

Mr. Giesler reported that the subcommittee did not want to pursue these changes unless the BOD feels it is worthwhile. The process is very involved and requires input from multiple groups within Society.

Ms. Maston spoke in favor of the spirit of the motion. She stated that currently, the BOD typically only sees Standards with PASA violations and unresolved commenters. She suggested that an action item could be assigned to Standards.

Ms. Hanson spoke against the motion. She stated that the motion is too directive and that Standards has been working on streamlining processes internally.

MOTION 23 PASSED (19:10:0, CNV).

Mr. Giesler moved that

24. Technology Council, the BOD Operational Streamlining Subcommittee, and SRC make revisions to the ROB to have new Standards and Guidelines development approval reside with Technology Council in lieu of the BOD.

Mr. Hermans spoke against the motion. He stated that it is the BOD's responsibility to approve standards that have legal implications. He suggested that Tech Council could approve most standards but that some do require BOD approval.

Ms. Maston spoke in favor of the motion. She stated that the motion addresses the review process that the BOD is not typically involved in. She stated that the motion presents an opportunity to streamline the process and doesn't take away from the part of the process that Mr. Hermans referenced.

Ms. Cramm spoke in favor of the motion. She stated that the TC would not be working independently and that this is not something that needs to come to the BOD.

Ms. Thomle spoke against the motion. She stated that if the BOD is going to be strategic, it must ensure that standards and guidelines are in line with the strategic plan.

Mr. McGinn spoke in favor of the motion. He stated that the only risk to the proposed motion would be that a new standard is developed and then defeated by the BOD. He suggested that providing the approval of development of a new standard as an information item to the BOD should eliminate that possibility.

MOTION 24 PASSED (Voice Vote, CNV). Mr. Hermans and Ms. Thomle voted against the motion.

Mr. Giesler moved that

25. SRC change the ROB to have Councils and other ASHRAE groups take responsibility for developing the nominees (include input from CRC's, member's nominations and other methods) and election of members to serve on committees and groups reporting to them in lieu of the BOD. Presidential appointments will remain unchanged with Councils and ASHRAE groups responsible for providing individuals for consideration along with the solicitation from CRCs, members, and other methods of creating a slate.

It was asked what this motion would change. Mr. Giesler reported that elections for committees like Handbook, would no longer be under the BOD's purview.

Mr. Hermans spoke against the motion stating that more specificity is needed.

Mr. Mehboob spoke against the motion. He stated that currently there is a centralized arrangement where staff handles a great deal of the work, and the proposed motion would muddle those efforts.

Ms. Bryant spoke against the motion. She stated that she is in favor of streamlining but expressed concern with councils making their own appointments and the possibility of friend groups monopolizing appointments. She suggested that the BOD provides a level of oversight which allows everyone to participate. She expressed her opinion that the proposed motion would cause issues and upset members.

Mr. Fulk stated that he was generally in favor of the motion. He stated that the subcommittee reviewed the process and determined that a lot of the work is already happening, and the BOD may not need to oversee all of this work.

Ms. Cramm spoke in favor of the motion. She stated if the BOD wants to be strategic, it has to push these types of tasks to the councils and allow them to be a bit more autonomous from the BOD.

Mr. Mehboob stated that if appointments are made at the council level, the voting members all have an iron in the fire. How would the Society ensure impartial results?

Ms. Maston stated that the proposal has some merit but may need more work. She suggested that the TC Section Heads could be elected by TC members.

Mr. Schwedler advised that guidelines for elected committees are included in the Bylaws as well.

Mr. Giesler responded that the motion does not impact election guidelines in the Bylaws, as the subcommittee was instructed not to propose edits to the Bylaws.

MOTION 25 FAILED (Voice Vote, CNV). Mr. Gagnon abstained.

Mr. Giesler moved that

26. Honors and Awards review which awards should be approved by the BOD due to the prestige of the award and propose changes to the ROB for presentation to the BOD for approval.

Mr. Mehboob stated the intent of the motion seems to be to take the workload off the BOD. He asked how much time is currently spent on approving Honors and Awards.

Mr. Giesler responded that approvals typically take between five and ten minutes.

Ms. Cramm suggested that the motion could be an action item to Honors and Awards.

Mr. Khankari stated that the spirit of the motion is to free the BOD for other, more strategic items.

Ms. Bryant spoke in favor of the motion. She stated that Members Council already has oversight and approval of Honors and Awards. She stated that the motion is a simple streamlining task that should be implemented.

Mr. Abellon spoke in favor of the motion. He stated that currently, some awards are approved by Members Council, and some require BOD approval. He stated that the motion did not come from H&A because that group was not asked to go through any streamlining activities and the subcommittee was. He stated that it is worthwhile to review which awards the BOD needs to approve. He applauded the subcommittee for looking for any ways to save time.

MOTION 26 PASSED (Voice Vote, CNV). Mr. Hermans voted against the motion.

Mr. Giesler moved that

27. Vice Presidents be removed as Chair and Vice Chair of Pub and Ed Council and Tech Council.

Mr. Macauley spoke against the motion.

Mr. Macauley moved and Mr. Zentz seconded that

28. MOTION 27:

That Vice Presidents be removed as Chair and Vice Chair of Pub and Ed Council and Tech Council be referred to the BOD Composition and Leadership Subcommittee.

Mr. Hermans spoke in favor of the motion.

Mr. Mehboob spoke against the motion and stated that the motion will ultimately end up back with the BOD.

Mr. Conlan spoke in favor of the motion stating that it falls under the purview of the other subcommittee.

Mr. McGinn spoke in favor of the motion to refer.

MOTION 28 PASSED (Voice Vote, CNV). Mr. Khankari and Mr. Mehboob voted against the motion. Mr. Gagnon abstained.

Mr. Giesler reported that in light of the BOD's decision, the subcommittee's final motion:

That ExCom be expanded in membership by adding two BOD members. These BOD members to ExCom shall be elected by the BOD. One will be assigned to serve on Technology Council and one will be assigned to Pub and Ed Council.

be referred to the BOD composition and Leadership Subcommittee as well. There was no objection to the referral.

Mr. Schwedler thanked Mr. Giesler and the subcommittee for their hard work. He stated that the motions presented are the types of streamlining items desired. He suggested that the cognizant committee or body be consulted before future motions are brought before the BOD; that would provide the cognizant committee or body the opportunity to bring the motion to the BOD.

NEW BUSINESS

REPORT OF THE 2022 ASHRAE WINTER CONFERENCE

Ms. Abrams thanked the BOD. She reported that the Winter Conference was a very successful event. She provided the BOD with the following information:

There were a total of 2,830 registered attendees - 1,483 in person, 799 committee meeting only and 548 virtual.

1,835 attendees picked up badges on site

The most popular in person technical session was *Introduction to Building Decarbonization* with 234 attendees.

The most popular live stream session was *HVAC Design Control and Operation of Hospitals after COVID-19* with 300 total views.

The most popular virtual session was *Refining ASHRAE COVID Guidelines and Standard 100* with 75 attendees.

439 meetings were held as part of the Conference.

Ms. Gupta reported that the ASHRAE booth at the AHR expo was successful; a strong wave of attendees stopping by and positive engagement. There were 350 attendees that stopped by the booth and thirteen new members joined at the booth.

Mr. Owen reported the following figures for education and publication sales at the Winter Conference:

491 education attendees and \$100,956 in revenue. This is about \$32,000 less than Atlanta 2019 and about \$130,000 less than Orlando 2020.

Combined publication sales for the hotel and Expo bookstores was \$42,618. This is about 35% of Orlando 2020 and 25% off average.

Mr. Schwedler reported that the Innovation Awards were presented on Monday and about 25,000 people came through.

ACTION ITEM REQUEST

Mr. Khankari will lead a group to develop recommendations for next steps to “make ASHRAE a household name,” as well as where in the present ASHRAE structure these actions could take place.

Mr. Schwedler reported that Mr. Khankari volunteered to lead a small group and complete the action item. He asked for volunteers.

Mr. Glesne, Mr. Giesler, Mr. Gray, and Mr. Rakheja volunteered.

GLOBAL ABC

Mr. Gray moved and Ms. Scoggins seconded that

- 29.** ASHRAE become a member of the United Nations Global Alliance for Buildings and Construction (Global ABC).

Ms. Scoggins spoke in favor of the motion. She stated that the TFBD discussed this opportunity and felt it would provide an opportunity for global outreach on decarbonization.

Mr. Brandt and Mr. Mehboob spoke in favor of the motion.

MOTION 29 PASSED (Unanimous Voice Vote, CNV).

UPCOMING MEETINGS

Mr. Schwedler reviewed upcoming BOD meetings.

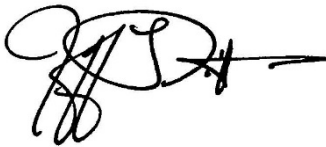
EXECUTIVE SESSION

Executive session was called at 5:49 pm.

Open session reconvened at 6:06 pm.

ADJOURNMENT

The meeting adjourned at 6:06 pm.



Jeff H. Littleton, Secretary

ATTACHMENTS:

- A. PEC ROB Edits
- B. PEC ROB Additions
- C. Indoor Carbon Position Document
- D - I. SRC Proposed ROB Edits
- J. ASHRAE Rules of Order
- K. ASHRAE Quick Reference Guide
- L. BOD Composition and Leadership Subcommittee Presentation
- M. BOD Operational Streamlining Subcommittee Report

Attachment A
PEC Report to BOD
February 2, 2022 – Winter Conference Las Vegas

Recommended addition to ASHRAE ROB

1.201.025.5. Certification Designation Recognition in ASHRAE Media Policy

1.201.025.5.1 ASHRAE certification designations are ASHRAE certification marks, used to show consumers that ASHRAE-certified professionals have fulfilled the competency requirements for certification.

1.201.025.5.1. ASHRAE certification designations may be acronyms and digital badges.

1.201.025.5.2. ASHRAE certification designations may be used by ASHRAE-certified

1.201.025.5.3. professionals to mark their certification status. Certificant use shall not imply or be used to imply in any way ASHRAE’s endorsement of the certificant’s company, products or other commercial interests.

1.201.025.5.4. ASHRAE is the sole owner of certificates of certification, and related certification designations.

1.201.025.5.5. ASHRAE certification acronyms shall be listed after certificant names in ASHRAE print and electronic media which also cite professional. designations. In such ASHRAE media pieces, designations shall be listed in the following order:

- 1.201.025.5.5.1.1. Professional license designations, followed by
- 1.201.025.5.5.1.2. Ph.D., or equivalent, followed by
- 1.201.025.5.5.1.3. ASHRAE certification designations, followed by
- 1.201.025.5.5.1.4. ASHRAE Member grade, followed by
- 1.201.025.5.5.1.5. Non-ASHRAE certification designations.

1.201.025.5.6. Multiple ASHRAE certification acronyms are ordered alphabetically.

1.201.025.5.7. In the event a certificant holds numerous ASHRAE certifications and media space is limited, then the certification acronym(s) most relevant to the media piece in question shall be cited.

Changes to Publications Committee portion of the Rules of the Board

[NOTE: Sections not affected have been omitted from this attachment and noted as such.]

2.419.001 SCOPE AND PURPOSE

[Section not affected.]

2.419.002 MEMBERSHIP

[Section not affected.]

2.419.003 OPERATION

2.419.003.1 General Requirements

A. This committee shall oversee the editorial policies of ASHRAE's Special Publications, *ASHRAE Transactions* and other conference proceedings, ~~ASHRAE's magazines (such as *ASHRAE Journal* and *High Performing Buildings*)~~, and ASHRAE's electronic newsletters. The committee shall be subject to these conditions:

[List not affected.]

B. ASHRAE shall produce Special Publications that shall be defined as all technical publications in print format (except for the ASHRAE Handbook series; standards, guidelines, and user's manuals; ASHRAE's research journal, and ASHRAE's magazines), such as non-series books (including books resulting from ASHRAE Research Projects and Special Projects), books in the Advanced Energy Design Guide series and the ASHRAE Datacom Series, charts, and tools, as well as all technical publications in machine-readable format, such as audio and visual presentations, software, databases, apps, and online resources. [These special publications may be generated from proposals submitted directly to Publications Committee or from accepted Publication Topic Acceptance Requests \(PTARs\), which Publications Committee reviews before providing recommendations to Research Administration Committee \(RAC\) for the final vote regarding funding.](#)

C. [Section not affected.]

D. The objective of *ASHRAE Journal* shall be to lead in communication of heating, ventilating, air-conditioning and refrigeration information to and from the profession, industry, and related interests. (ROB 520-144-007). Editorial and advertising content of *ASHRAE Journal* shall be directed toward the professional education of persons engaged in industries related to heating, ventilating, air conditioning, and refrigeration. (86-06-22-18L) ~~The objective of *High Performing Buildings* shall be to focus on practices and technologies to promote better buildings and offer practical solutions. Articles will include when available measured performance data and lessons learned through the design, construction and operation of today's best performing buildings.~~

E. The objective of ASHRAE's electronic newsletters shall be to communicate news to various audiences. ~~*ASHRAE eSociety Insights*~~, distributed to members only, includes news of members, chapters, regions, Society committees, and International Associates. (ROB 520-144-007; 86-06-22-18L) *ASHRAE Journal Newsletter*, distributed to members only, connects news of industry trends with articles from ~~the *ASHRAE Journal*'s~~ archive of peer-reviewed content. *ASHRAE HVAC&R Industry News* curates the latest trends and announcements from the industry to a large readership of members and non-members. *HPB Newsletter* combines online ~~first versions of~~ HPB ~~print~~ articles [and *ASHRAE Journal* articles](#) with links to external articles related to energy efficiency, resiliency and sustainability for a diverse audience of ASHRAE engineers, architects, facilities managers and building owners.

**ASHRAE Position Document on Indoor Carbon Dioxide
January 18, 2022**

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The authors declare they have no conflict of interest related to the subject of this position document.



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ABSTRACT

Indoor carbon dioxide has played a key role in discussions of ventilation and indoor air quality (IAQ) for centuries. Those discussions have evolved to focus on the use of indoor CO₂ as an IAQ metric, estimation of ventilation rates using CO₂ as a tracer gas, control of outdoor air ventilation based on CO₂ concentrations, and impacts of CO₂ on building occupants. More recently, the measurement of indoor CO₂ has been discussed in the context of airborne infectious disease transmission. However, many applications of indoor CO₂ do not reflect a sound technical understanding of the relationship between indoor CO₂ concentrations, ventilation and IAQ. Some applications have been technically flawed, leading to misinterpretations of the significance of indoor CO₂. This Position Document discusses the role of indoor CO₂ in the context of building ventilation and IAQ based on ASHRAE's long involvement with those topics, as well as the interests of its members and stakeholders. The stated positions address the use of CO₂ as a metric of IAQ and ventilation, the impacts of CO₂ on building occupants, ~~concentration~~ the measurement of CO₂ concentrations, the use of CO₂ to control outdoor air intake rates, and the relationship of indoor CO₂ to airborne infectious disease transmission. This document recommends research into the impacts of CO₂ on occupant health, comfort and performance and on the application of indoor CO₂ concentrations in building operation, as well as the development of guidance on the measurement and practical use of CO₂ concentrations.

EXECUTIVE SUMMARY

While indoor CO₂ concentrations have long been considered in the context of building ventilation and IAQ, the meaning of indoor CO₂ an indicator of IAQ and ventilation is commonly misinterpreted within the HVAC industry, research community and public. Despite many efforts to address this confusion in standards and guidance documents, technical publications, conference presentations and workshops, significant misunderstandings remain. Based on ASHRAE's involvement in ventilation and IAQ research and standards, this Position Document has been developed to clarify the role of indoor CO₂ and how it can be used to understand and manage building performance. It ~~specifically~~ addresses the history of CO₂ in relation to building ventilation and IAQ, what is known about health and cognitive impacts of CO₂ exposure on building occupants, existing standards and guidelines on indoor CO₂ concentrations, limitations in the use of CO₂ as an indicator of ventilation and IAQ, how CO₂ can be used to evaluate and control outdoor air ventilation, increases and variations in outdoor CO₂ concentrations, indoor air cleaning to remove CO₂, and the use of CO₂ as an indicator of the risk of airborne disease transmission indoors. It focuses on non-industrial, indoor environments intended for human occupancy, including residences, offices, schools, and transportation environments.

POSITIONS

This document takes the following positions:

- Indoor CO₂ concentrations ~~are not provide comprehensive metrics~~ do not provide an overall indication of IAQ, but they can be a useful tool in IAQ assessments if users understand the ~~basis and limitations for limits in their these~~ applications.
- Existing evidence for direct impacts of CO₂ on health, well-being, learning outcomes and work performance at commonly observed indoor concentrations is inconsistent, and therefore does not yet currently justify changes to ventilation and IAQ standards, regulations and guidelines.
- The use of indoor CO₂ measurements to assess and control the risk of airborne disease transmission must account for the ~~definition~~ level of acceptable risk, the type of space and its occupancy, space type, and differences in CO₂ and infectious aerosol emissions and their subsequent, fate and transport.



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- Differences between indoor and outdoor CO₂ concentrations can be used to ~~estimate~~ evaluate ventilation rates and air distribution using established tracer gas measurement methods, but accurate results require the validity of several assumptions and accurate input values ~~of several inputs~~.
- Sensor accuracy, location and calibration are all critical for drawing meaningful inferences from measured indoor CO₂ concentrations.
- Air cleaning technologies that remove only CO₂ will not necessarily improve overall IAQ and ~~will~~ can interfere with systems using CO₂ for ventilation control or IAQ monitoring.

RECOMMENDATIONS

ASHRAE recommends research on the following topics:

- Indoor CO₂ exposure as a modifier of human responses to other environmental factors such as thermal comfort and other airborne contaminants.
- The development of IAQ metrics that cover the wide range of indoor contaminants and sources.
- Health and performance impacts of indoor CO₂ in concentration ranges typical of non-industrial indoor environments in both laboratory and field settings covering a diverse range of occupants, including variations in age, gender and health status.
- Physiological impacts of elevated CO₂ concentrations, such as changes in blood chemistry and respiration, including those associated with increasing outdoor CO₂ concentrations.
- The relationship between indoor CO₂ concentrations and the risks of airborne infectious disease transmission.
- Indoor CO₂ concentration measurement including sensor performance and sensor locations for different applications, including the performance and application of low-cost CO₂ sensors.
- The use of occupant-generated CO₂ as a tracer gas to estimate building ventilation rates, including approaches that capture transient effects and account for multiple space ventilation systems and different approaches to air distribution.
- Strategies for demand control ventilation using CO₂ and other indicators of occupancy that overcome limitations of current approaches and control contaminants that are not linked to occupancy ~~levels~~.
- Indoor CO₂ concentrations, ventilation rates and occupancy in different building types in different countries to establish benchmark data and better understand the impacts of new building and system designs, tighter construction, advanced operation and control strategies, and other changes in the building stock.

ASHRAE also recommends the following activities:

- Development of guidance and standards on indoor CO₂ concentration measurement and sensor selection, especially for demand control ventilation applications.
- Development of educational programs, conference sessions and workshops, and guidance documents to help practitioners and researchers understand the application of indoor CO₂ concentrations as an indicator of IAQ.
- Development of guidance on HVAC equipment and controls employing CO₂ monitoring.
- Development of guidance on the use of CO₂ as a tracer gas for measuring building ventilation rates and ~~outdoor~~ air distribution in occupied spaces.

1. THE ISSUE

Indoor CO₂ has been considered in the context of ~~building~~ ventilation and indoor air quality (IAQ) for centuries. These discussions have focused on two areas: how CO₂ concentrations relate to occupant



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perception of human bioeffluents and other aspects of IAQ, and the use of CO₂ to evaluate outdoor air ventilation rates. While these topics have been studied for decades, misinterpretation of CO₂ concentration as an indicator of IAQ and ventilation still occurs in the HVAC industry, IAQ research community, and the public. ~~There have been~~ Despite many efforts to address this confusion in standards and guidance documents, technical publications, conference presentations and workshops, ~~but~~ significant misunderstanding remains.

In addition to the need to clarify the relationship of indoor CO₂ concentration to IAQ and ventilation, another motivations for this position document ~~include~~ is to address recent research results on the impacts of CO₂ on human ~~cognitive~~ performance at commonly observed indoor concentrations ~~that were previously thought not to be of concern~~. ~~Other recent studies have examined physiological impacts at these lower concentrations, distinct from, though perhaps related to, cognitive and performance effects.~~ Given trends of increasing outdoor CO₂ concentrations, additional concerns have been expressed regarding these potential health and performance impacts of CO₂ concentrations in non-industrial indoor environments. Moreover, a variety of organizations and government bodies have issued standards and regulations for indoor CO₂ concentrations in non-industrial workplaces, ~~and CO₂ sensors have become less expensive and more widely deployed.~~ Concerns have long existed regarding the accuracy of indoor CO₂ concentration measurements, ~~and they~~ which are increasingly common due to ~~with~~ the availability and more widespread application of less expensive CO₂ sensors. Indoor CO₂ monitoring has also been promoted as a ventilation indicator in the context of managing the risks of airborne disease transmission. Finally, most of these applications of indoor CO₂ measurements require values for the rate at which building occupants generate CO₂ and other inputs, and the uncertainty of these values have not been well characterized. These recent developments and the longstanding issues regarding application of indoor CO₂ concentrations motivate the development of this Position Document.

2. BACKGROUND

This section expands on the topics in the Issue section in support of the positions and recommendations in this document, specifically: the history of the role of indoor CO₂ concentrations in the context of ventilation and IAQ; health and cognitive impacts of exposure to CO₂; existing standards and regulations for indoor CO₂ concentrations; CO₂ as an indicator of IAQ and ventilation; use of CO₂ as a tracer gas for estimating ventilation rates; increases in outdoor CO₂ concentrations; air cleaning directed at CO₂ removal alone; and CO₂ as an indicator of the risk of airborne disease transmission. More detail on these topics, including detailed references, is contained in an Appendix to this Position Document.

History of CO₂ in relation to building ventilation and IAQ

CO₂ has been discussed in the context of building ventilation since the 17th and 18th centuries when CO₂ rather than the lack of oxygen was considered to be a cause of physiological effects attributed to bad air. In the 19th century, Pettenkofer stated that it was not CO₂ but the presence of organic material from human skin and lungs that caused the negative effects attributed to poor ventilation, proposing that CO₂ not be considered as a cause of discomfort but rather as a surrogate for vitiated air. In the early 20th century, studies by Billings, Hermans, Flugge, Hill and others showed that warmth combined with smells in a crowded room were a source of discomfort in poorly ventilated rooms. The work of Lemberg and later Yaglou showed that occupant perception of body odor produced by humans could be used as a criterion for ventilation. Perceived odor intensity was used as a criterion for ventilation rate requirements of about 7.5 to 10 L/s (15 to 20 cfm) per person, and again CO₂ was not considered to be a pollutant but rather an indicator of body odor. Studies in the latter part of the 20th century by Fanger, Cain and Iwashita confirmed the results of Yaglou and Lemberg. This research on body odor perception was used



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to develop the ventilation requirements in current CEN (European Committee for Standardization) and ASHRAE standards. The 1989 version of ASHRAE's ventilation standard 62 (subsequently 62.1) had a CO₂ limit of 1000 ppm_v, but it was removed from subsequent versions due to its common misinterpretation.

Health and cognitive effects of CO₂ exposure

Indoor concentrations greater than 1,000 ppm_v have been associated with increases in self-reported, non-specific symptoms commonly referred to as sick building syndrome (SBS) symptoms. However, these observations were not controlled for other contaminants and environmental parameters, therefore elevated CO₂ concentrations likely served as an indicator of inadequate ventilation that increases the concentration of all contaminants with indoor sources. More recently, several groups have explored the effects of short-term exposure (2 to 8 h) to pure CO₂ at concentrations between 600 and 5,000 ppm_v. Some of these studies demonstrated concentration-dependent impairment, an indicator of a causal effect, but other studies did not show any effects on cognitive. These inconsistencies require further investigation, including study of the mechanisms involved. This research is a priority due to the ubiquity of indoor concentrations in excess of 1,000 ppm_v.

Existing standards and regulations for indoor CO₂ concentrations

Many countries have proposed mandatory or suggested guideline values for indoor CO₂ in non-industrial spaces. It should be noted that the rationales supporting these guideline values are not generally provided along with these guideline values. These indoor CO₂ limits tend to be on the order of 1000 ppm_v, but range as high as about 1500 ppm_v. They are generally intended for the management of generic IAQ concerns and sick building syndrome symptoms. CO₂ guideline values in the airborne infectious disease transmission are discussed below.

For workplaces, the United States Occupational Safety and Health Administration (OSHA) and National Institute for Occupational Safety and Health (NIOSH) have established a time-weighted average limit value of 5,000 ppm_v for airborne exposure in any 8-hour work shift during a 40-hour work week and 30,000 ppm_v as a Short-Term Exposure Limit, i.e., a 15-minutes time-weighted average that should not be exceeded at any time during a workday. ASHRAE Standard 62.1 has not contained a limit value for indoor CO₂ since the 1989 version of the standard. Misunderstanding of previous versions of the standard continue to lead many to incorrectly attribute a 1000 ppm_v limit to ASHRAE.

CO₂ as an indicator of IAQ and ventilation

As noted above, indoor CO₂ has been prominent in discussions of ventilation and IAQ for centuries. While CO₂ concentrations are related to the perception of human bioeffluents and the level of acceptance of their odors, they are not a good overall metric of IAQ as many important contaminant sources do not depend on the number of occupants in a space. For example, contaminants emitted by building materials and those that enter from outdoors are not correlated with CO₂ concentrations. Nevertheless, if outdoor air ventilation rates are reduced in an occupied building, concentrations of CO₂ will increase along with the concentrations of other contaminants generated indoors.

An indoor CO₂ concentration below 1000 ppm_v has long been considered an indicator of acceptable IAQ, but this concentration is at best an indicator of outdoor air ventilation rate per person. A value of 1000 ppm_v has been used as an indicator of ventilation adequacy for decades without an understanding of its basis, which is its link to the perception of human body by building occupants. This misunderstanding of the significance of 1000 ppm_v has resulted in many confusing and erroneous conclusions about



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ventilation in buildings. The use of CO₂ as an indicator of outdoor air ventilation must consider that outdoor air ventilation requirements depend on space type, occupant density and occupant characteristics (e.g., age, body mass and activity levels). Therefore, a single CO₂ concentration does not apply to all space types and occupancies for the purposes of assessing the ventilation rate. Also, CO₂ concentrations can vary significant within a building or space based on the details of how ventilation and air distribution are implemented

Indoor CO₂ concentrations have long been used to control outdoor air intake rates, using demand control ventilation (DCV). This control strategy reduces the energy use associated with over-ventilation during periods of low occupancy and helps to ensure that spaces are adequately ventilated based on their actual occupancy. DCV is in fact required by some energy efficiency standards such as ASHRAE 90.1, and CO₂ monitoring is one means of implementing DCV. Note that this control strategy can be more complex to implement in multiple space ventilation systems when complying with ventilation requirements in ASHRAE Standard 62.1 and the designer still must address contaminants not associated with occupancy levels.

Use of occupant-generated CO₂ as a tracer gas

The use of indoor CO₂ concentrations as an indicator of the adequacy of outdoor air ventilation rates is based on the application of CO₂ as a tracer gas. Tracer gas dilution methods for measuring outdoor air change rates have been used for decades and are well-documented in existing ASTM and ISO standards. Application of CO₂ to these methods simply takes advantage of a convenient tracer gas source, i.e., the building occupants. Tracer gas methods also exist to quantify air distribution and ventilation efficiency in spaces, and CO₂ can be used for these measurements as well.

There are two basic tracer gas methods for estimating outdoor air ventilation rates using CO₂, decay rate and steady-state, both of which are best suited to single zones. Both methods are based on the following assumptions: the tracer gas concentration is uniform in the space being monitored, the outdoor CO₂ concentration is constant during the test (or monitored in real-time), and the rate at which occupants generate CO₂ is known and constant for the steady-state method. People emit CO₂ at a rate based on their sex, age, and level of activity, and therefore information on the occupants is required to estimate these rates. These tracer gas methods are for single-zones, which means they do not account for airflows and CO₂ transport between the zone being tested and other building zones. The measurement errors associated with using a single-zone approach in a space or building that is not a single zone at a uniform concentration are difficult to quantify, and the estimate of these errors is often neglected in the application of these methods.

Increases in outdoor CO₂ concentrations

Outdoor CO₂ concentrations are relevant to consideration of indoor CO₂ for two important reasons. First, when using DCV based on the absolute indoor CO₂ concentration, and not the indoor-outdoor difference, the outdoor air intake rate will vary not only with occupancy, but also with the outdoor air concentration. Second, if exposure to CO₂ is established to have health and cognitive impacts, then increases in outdoor concentrations will increase their prevalence.

Global average CO₂ concentrations are determined by a complex interaction of sources, sinks, and driving forces. On a geological time scale, it has varied widely, but for hundreds of thousands of years, up until the early 20th century, it was below 300 ppm_v, first exceeding 300 ppm_v in 1912. Since that time, the average concentration has increased, reaching 420 ppm_v in 2021. Superimposed on the trend of



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increasing outdoor CO₂ concentration are daily and seasonal variations, as well as larger variations in urban areas. These variations in outdoor CO₂ make it important to also measure outdoor concentrations when monitoring indoor CO₂.

Air cleaning directed at CO₂ removal alone

While CO₂ may be a useful indicator of ventilation, indoor CO₂ concentrations are not necessarily well correlated with other important indoor air pollutants such as viruses, mold, formaldehyde, carbon monoxide, asbestos, and airborne particles. Using air-cleaning technologies to reduce CO₂ for commonly observed indoor concentrations (i.e., 1000 to 3000 ppm_v) can result in an unjustified expectation that other indoor pollutants are not a concern. It is critical not to presume that air cleaning directed at CO₂ removal or conversion alone will remove other important indoor air contaminants. Also, when employing CO₂-based DCV, the ventilation system will not operate as intended if using CO₂ removal.

CO₂ as an indicator of airborne infection risk transmission

During the COVID-19 pandemic, recommendations have been made to use indoor CO₂ measurements as an indicator of the risk of airborne infection transmission. ASHRAE does not recommend a specific CO₂ concentration as a metric of infection risk, but other organizations have issued recommended or mandated CO₂ concentration limits. Many of these are based on CO₂ as an indicator of the outdoor ventilation rate per person. The ventilation rates on which these CO₂ concentrations are based can be derived from ventilation standards that are intended to provide acceptable IAQ but do not target the control of airborne disease transmission, except in healthcare settings. Recommendations or requirements for ventilation rates and CO₂ concentrations to limit infectious disease transmission have been suggested but are highly uncertain given the many factors that impact infection risk, including differences between pathogens.

All else being equal, higher CO₂ concentrations correspond to lower outdoor air ventilation rates and potentially an increased risk of airborne transmission. While CO₂ concentrations can be a useful qualitative indicator, they do not capture the impacts of reduced occupancy that is common in many buildings or the impacts of particle filtration and air cleaning on infection risk. Other factors impact exposure and transmission risk, such as the amount of virus in the air, which does not necessarily scale with CO₂, respiratory activity, and type of pathogen. Note also that if CO₂-based DCV is being employed, lower occupancy will reduce the outdoor air ventilation rate and presumably increase the risk of transmission, which is why several organizations have recommended disabling DCV systems.

Rather than using indoor CO₂ concentrations as an indicator of desired ventilation rates, several analyses of airborne infection risk have used CO₂ as an indicator of the “rebreathed fraction” of indoor air (the fraction of inhaled air that was exhaled by someone else in the space). If the incidence of an airborne disease in the population and the infectious dose of the pathogen are known, these methods can be used to estimate the percentage of new infections for a particular scenario. These methods rely on multiple assumptions about the distribution of indoor CO₂ and infectious aerosol, the relative significance of different infection modes, and dose response relationships that are subject to large uncertainties. Consequently, they may not be highly accurate predictors of risk.



APPENDIX

This appendix contains a more detailed and thoroughly referenced expansion of the discussion of the Background section in the body of the Position Document for readers who desire a more in depth understanding of that material. As does the Background, this appendix expands on the topics identified in the Issue section in support of the positions and recommendations in this document, specifically: the history of the role of indoor CO₂ concentrations in the context of building ventilation and IAQ; health and cognitive impacts of exposure to CO₂; existing standards and regulations for indoor CO₂ concentrations; CO₂ as an indicator of IAQ and ventilation; use of CO₂ as a tracer gas for estimating ventilation rates; increases in outdoor CO₂ concentrations; air cleaning directed at CO₂ removal alone; and CO₂ as an indicator of the risk of airborne disease transmission.

History of CO₂ in relation to building ventilation and IAQ

CO₂ has been discussed in the context of building ventilation since the 17th century when Mayow proposed igneo-aerial particles produced by candles to cause the demise of animals (Wargocki 2021). In the 18th century, Lavoisier attributed the effects of these particles to CO₂. At that time, CO₂ rather than the lack of oxygen was considered to be a cause of physiological effects attributed to bad air and an indicator of whether the air was stale or fresh. In the 19th century, Pettenkofer stated that it was not CO₂ but the presence of organic material from human skin and lungs that caused the negative effects attributed to poor ventilation. He ~~proposed with~~ and Saeltzer proposed that CO₂ not be considered as a cause of discomfort but rather as a surrogate for vitiated air and an indicator of deleterious airborne substances of unknown origin. One thousand ppm_v of CO₂ was proposed by Pettenkofer as a marker of inadequate ventilation indoors and 700 ppm_v for bedrooms. In the early 20th century, studies by Billings, Hermans, Flugge, Hill and others showed that warmth combined with smells in a crowded room were a source of discomfort in poorly ventilated rooms. Experiments with CO₂ increasing up to 3 to 4 % and oxygen falling to 17 % did not show negative effects except for deepened breath and the need for cooling. The work of Lemberg and later Yaglou showed that response to body odor produced by humans could be used as a criterion for ventilation. Perceived odor intensity was used as a criterion for ventilation rate requirements of about 7.5 to 10 L/s (15 to 20 cfm) per person (Persily 2015). CO₂ was, again, not considered as a pollutant but rather a marker of body odor perception since humans emit both CO₂ and bioeffluents at rates related to their metabolism. Studies in the latter part of the 20th century by Fanger, Cain and Iwashita in which they used acceptability of perceived air quality as the criterion for ventilation requirements confirmed the results of Yaglou and Lemberg. This research on body odor perception was used to develop the ventilation requirements in current CEN (European Committee for Standardization) and ASHRAE standards. The 1989 version of ASHRAE's ventilation standard 62 (subsequently 62.1) had a CO₂ limit of 1000 ppm_v, but it was removed from subsequent versions due to its common misinterpretation.

Health and cognitive effects of CO₂ exposure

CO₂ is considered non-toxic at concentrations up to 5,000 ppm_v, which is the U.S. federal standard (Permissible Exposure Level) for workplaces set by the Occupational Safety and Health ~~Agency~~ Administration (OSHA) as noted below. Guidelines for the International Space Station and U.S. submarines currently suggest that CO₂ concentrations be maintained at 4,000 to 5,000 ppm_v to reduce the incidence of headaches (James and Zalesak 2013; Scully 2019). Indoor concentrations greater than 1,000 ppm_v have been associated with ~~increased risk of~~ increases in self-reported, non-specific symptoms commonly referred to as sick building syndrome (SBS) symptoms, as well as decreased performance of office work and schoolwork, as discussed below. These observations were not controlled for other



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contaminants and environmental parameters, therefore elevated CO₂ concentrations likely served as an indicator of inadequate ventilation that increases the concentration of all contaminants with indoor sources (Persily 2015, Lowther et al. 2021).

Several groups have explored the effects of acute exposure (duration from 2 to 8 h) to pure CO₂ at concentrations between 600 and 5,000 ppm_v as summarized by Fisk et al. (2019), Du et al. (2020) and Lowther et al. (2021). Five studies reported an association between CO₂ and decreased cognitive performance at concentrations in the range of 1000 ppm_v (Satish et al, 2012; Allen et al., 2016; 2018; Kajtar and Herczeg, 2012; Lee et al., 2022), and one was equivocal (Scully et al., 2019). While three of these studies demonstrated concentration-dependent impairment, an indicator of a causal effect, other studies did not show any cognitive effects (Zhang et al. 2016a, b). These inconsistencies require further investigation, including study of the mechanisms involved. Further human subject research is a priority due to the ubiquity of indoor concentrations in excess of 1,000 ppm_v, and recent animal work that provides direction for investigation of mechanisms of declines in cognitive function.

Although CO₂ lacks direct chemical reactivity, recent studies with mice show inflammatory changes in the blood at 2,000 to 4,000 ppm_v and leakage of fluid from blood vessels into brain tissue at 2,000 ppm_v (Thom et al., 2017a). Further confirmation of these results was found in in-vitro experiments with human neutrophils (a type of white blood cell) at the same concentrations (Thom et al., 2017b). These findings support the phenomenon of brain toxicity from pure CO₂ and are mechanistically consistent with reports of cognitive changes observed in the human experiments at commonly observed indoor concentrations. Further research to resolve questions regarding the neurotoxicity of CO₂ should be a priority (Jacobson et al., 2019).

Existing standards and regulations for indoor CO₂ concentrations

Many countries have proposed mandatory or suggested guideline values for indoor CO₂ in non-industrial spaces. It should be noted that the rationales supporting these guideline values are not necessarily provided in the reference documents and that CO₂ guideline values proposed in the context of COVID-19 pandemic are not included in this discussion. Pandemic-motivated values are discussed below in the section on airborne infection risk transmission.

Several countries have published indoor CO₂ limits, in some cases for all occupied buildings and in others making a distinction between residential and non-residential. They tend to be on the order of 1000 ppm_v, but range as high as about 1500 ppm_v. They are generally intended for the management of generic IAQ concerns and sick building syndrome symptoms when CO₂ is being used as an indicator of ventilation rate. Of particular note is the 1000 ppm_v limit in Japan that was issued in 1970; thousands of buildings are tested every year to determine if they comply with the Building Sanitation Maintenance Law.

For ~~industrial spaces~~ workplaces, the United States Occupational Safety and Health Administration (OSHA) and National Institute for Occupational Safety and Health (NIOSH) have established a time-weighted average limit value of 5,000 ppm_v for ~~an average~~ airborne exposure in any 8-hour work shift during a 40-hour work week and 30,000 ppm_v as a Short-Term Exposure Limit, i.e., a ~~duration of 15-~~ minutes time-weighted average that should not be exceeded at any time during a workday (NIOSH 1976; OSHA 2020).



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Despite many statements to the contrary, ASHRAE Standard 62.1 does not provide a limit value for indoor CO₂ (ASHRAE 2019). Misunderstanding of information in previous versions of the standard continue to lead many to incorrectly attribute a 1000 ppm_v limit to ASHRAE. CEN standard 16798-1 (2019) provides four categories of quality depending on the CO₂ concentration above outdoor concentration, noting that these values serve as indicators of outdoor air ventilation rates per person: Category I: 550 ppm_v; Category II: 800 ppm_v; and Category III and IV: 1350 ppm_v. These categories correspond to the expectations of the occupants, with normal expectations corresponding to level II.

CO₂ is also addressed in Green Building certification programs. Two recent reviews of the major green building certifications developed worldwide and the indicators they use to assess indoor environment quality showed that CO₂ is one of the top indoor air quality metrics in these certifications (Wei et al. 2015, 2020). However, the reference values used to assess CO₂ concentrations are not uniform, varying from 530 ppm_v to 1500 ppm_v (Wei et al. 2015).

CO₂ as an indicator of IAQ and ventilation

As noted in the history above, indoor CO₂ has been prominent in discussions of ~~building~~ ventilation and IAQ for centuries. While CO₂ concentrations are related to the perception of human bioeffluents and the level of acceptance of their odors, they are not a good overall metric of IAQ as many important contaminant sources do not depend on the number of occupants in a space. For example, contaminants emitted by building materials and those that enter from outdoors are not correlated with CO₂ concentrations. Nevertheless, all else being equal, if outdoor air ventilation rates are reduced in an occupied building, concentrations of CO₂ will increase along with the concentrations of other contaminants generated indoors. This fact likely explains observed associations of increased CO₂ concentrations with higher sick building symptom rates, absenteeism and other effects (Apte et al., 2000; Shendell et al., 2004; Gaihre et al., 2014; Fisk 2017).

~~Indoor~~ An indoor CO₂ concentrations below 1000 ppm_v ~~have~~ has long been considered an indicator of acceptable IAQ, but this concentration is at best an indicator of outdoor air ventilation rate per person. That relationship is based on the use of CO₂ as a tracer gas as described in the next section and is associated with an outdoor air ventilation rate of about 8 L/s (16 cfm) per person. ~~One thousand~~ A value of 1000 ppm_v has been used as an indicator of ventilation adequacy for decades without an understanding of its basis, which is its link to the perception of human body by building occupants. This misunderstanding of the significance of 1000 ppm_v has resulted ~~resulting~~ in many confusing and erroneous conclusions about ventilation in buildings. Use of CO₂ as an indicator of outdoor air ventilation must reflect the fact that outdoor air ventilation requirements are a function of space type and occupant characteristics (e.g., age and body mass), activity levels and density. Therefore, a single CO₂ concentration does not apply to all space types and occupancies for the purposes of assessing the ventilation rate. Also, CO₂ concentrations can vary significant within a building or space based on the details of how ventilation and air distribution are implemented

Indoor CO₂ concentrations have long been used to control outdoor air intake rates, using a process referred to as demand control ventilation (DCV) (Emmerich and Persily 1997). This control strategy reduces the energy use associated with over-ventilation during periods of low occupancy and helps to ensure that spaces are adequately ventilated based on their actual occupancy. DCV is in fact required by some energy efficiency standards such as ASHRAE 90.1, and CO₂ monitoring is one means of implementing DCV. Note that this control strategy can be more complex to implement in multiple space ventilation systems when complying with ventilation requirements in ASHRAE Standard 62.1 and the



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designer still must address contaminants not associated with occupancy levels. Recent research on DCV has led to control sequences for multiple space systems (Lin and Lau, 2015), which must also address the number and location of sensors in different building zones and variations in CO₂ generation among zones and over time.

Use of occupant-generated CO₂ as a tracer gas

The use of indoor CO₂ concentrations as an indicator of the adequacy of outdoor air ventilation rates is based on the application of CO₂ as a tracer gas. Tracer gas dilution methods for measuring outdoor air change rates have been used for decades and are well-documented in existing test standards (ASTM 2011; ISO 2017). Application of CO₂ to these methods simply takes advantage of a convenient tracer gas source, i.e., the building occupants. Tracer gas methods also exist to quantify air distribution and ventilation efficiency in spaces, and CO₂ can be used for these measurements as well, however, most applications of CO₂ as a tracer assume the space in question is a single zone at a uniform tracer gas concentration.

As noted in ASTM D6245 (2018), there are two tracer gas methods for estimating outdoor air ventilation rates using CO₂: decay rate and steady-state, both of which are best suited to single zones. ~~The ventilation rates calculated from these single-zone~~ Both methods are based on the following assumptions: the tracer gas concentration is uniform in the space being monitored, the outdoor CO₂ concentration is constant during the test (or monitored in real-time), and the rate at which occupants generate ~~occupant-generated~~ CO₂ is known and constant for the steady-state method. People emit CO₂ at a rate based on their sex, age, and level of activity as described in ASTM D6245, and therefore information on the occupants is required to estimate these rates. When reporting the results of these tracer gas measurements, it is essential also to report the uncertainty of the results. D6245 discusses how to estimate these uncertainties. These tracer gas methods are for single-zones, which means they do not account for airflows and CO₂ transport between the zone of interest and other building zones. The measurement errors associated with using a single-zone approach in a space or building that is not a single zone at a uniform concentration is difficult to quantify, and the estimate of these errors is often neglected in the application of these methods.

Peak CO₂ concentrations are commonly used to estimate ventilation rates per person using the constant injection tracer gas dilution method. For this approach to yield a valid result, the indoor concentration must be at steady-state and ventilation rate must be constant. Using a CO₂ concentration measured before achieving steady state will overestimate the ventilation rate. In a study of the uncertainty associated with CO₂ tracer gas measurements in an occupied space, the steady-state approach resulted in the lowest uncertainty and the CO₂ sensor accuracy was the dominant factor in determining the overall uncertainty (Kabirikopai and Lau 2020).

Increases in outdoor CO₂ concentrations

Outdoor CO₂ concentrations are relevant to consideration of indoor CO₂ for two important reasons. First, when using ϵ_{O_2} DCV based on the absolute indoor CO₂ concentration, and not the indoor-outdoor difference, the outdoor air intake rate will vary not only with occupancy, but also with the outdoor air concentration. ~~Also~~ Second, if exposure to CO₂ is established to have health and cognitive impacts, then increases in outdoor concentrations will increase their prevalence.

~~The~~ gGlobal average CO₂ concentrations are is determined by a complex interaction of sources, sinks, and driving forces. On a geological time scale, it has varied widely, but for hundreds of thousands of



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years, up until the early 20th century, it was below 300 ppm_v, first exceeding 300 ppm_v in 1912 (EPA 2021). Over the ensuing half century, the average concentration grew slowly, reaching 317 ppm_v in 1960 as measured at the Mauna Loa observatory in Hawaii. Since that time, atmospheric CO₂ concentrations have risen more rapidly, passing 400 ppm_v in 2013 and reaching 420 ppm_v in 2021. The annual growth rate has increased from less than 1 ppm_v per year in 1959 to roughly 2.5 ppm_v per year (NOAA 2021).

Superimposed on the trend of increasing outdoor CO₂ concentration are daily, seasonal and annual variations. Daily variations are generally small, but a study of concentration over terrestrial ecosystems found an average seasonal peak-to-trough amplitude of 14.8 ppm_v, roughly three times the variation observed at the Mauna Loa observatory (Liu et al. 2015). Seasonal variations are attributable to cycles of biomass and photosynthetic activity of plants, with CO₂ being higher during colder periods of the year (Cleveland et al. 1983). Urban areas may experience much larger excursions of CO₂ above the global average due to lack of vegetation and the effects of internal combustion engine vehicles, as well as large vertical variations (Lietzke and Vogt 2013). Transient local concentrations may be hundreds of ppm_v above average in some locations, approaching or exceeding 600 ppm_v (Balling et al. 2001). Local concentrations can also be below the average depending on season, time of day and local vegetation (Liu et al. 2015).

Air cleaning directed at CO₂ removal alone

While CO₂ can be useful as an indicator of ventilation and IAQ under limited circumstances, indoor CO₂ concentrations are not necessarily well correlated with other important indoor air pollutants such as viruses, mold, formaldehyde, carbon monoxide, asbestos, and airborne particles. Using air-cleaning technologies to reduce CO₂ for commonly observed indoor concentrations (i.e., 1000 to 3000 ppm_v) can result in an unjustified expectation that other indoor pollutants are not a concern.

It is important to distinguish between different air cleaning technologies and how they impact different types of pollutants. The removal or conversion of CO₂ in the air can be achieved only by chemical reaction processes using sorption-type air cleaners (Hu et al., 2017). The removal of other important indoor contaminants requires other approaches, for example airborne particle removal by mechanical filters. It is critical not to presume that air cleaning directed at CO₂ removal or conversion alone will remove other indoor air contaminants that might be of more concern. Also, when employing CO₂-based DCV, the ventilation system will not operate as intended if using CO₂ removal devices, since these ventilation controls assume that the measured indoor CO₂ concentration is proportional to human occupancy.

CO₂ as an indicator of airborne infection risk transmission

During the COVID-19 pandemic, recommendations have been made to use indoor CO₂ measurements as an indicator of the risk of airborne infection transmission. ASHRAE does not recommend a specific CO₂ concentration as a metric of infection risk, but other organizations have recommended (CDC, REVHA, EMG/SPI-B) or mandated (Belgian Federal ~~Public Service Employment Government~~) CO₂ concentrations limits. Many of these are based on CO₂ as an indicator of the outdoor ventilation rate per person, which implicitly involves the use of CO₂ as a tracer gas along with a target ventilation rate. The ventilation rates on which these CO₂ concentrations are based can be derived from ventilation standards, which are not based on the control of airborne disease transmission except in healthcare settings, or from a ventilation rate assumed to control transmission. Note that the ventilation requirements in ASHRAE Standard 62.1 are a function of space use and occupancy, and therefore the corresponding indoor CO₂ concentration will vary by space type. For example, the steady-state CO₂ concentrations corresponding to



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the ventilation requirements in Standard 62.1 range from about 1000 ppm_v in office spaces and classrooms with younger students, between 1500 and 2000 ppm_v in restaurants, lecture classrooms and retail spaces, and above 2500 ppm_v in conference rooms and auditoriums. Recommendations or requirements for ventilation rates and CO₂ concentrations to limit infectious disease transmission have been suggested but are highly uncertain given the many factors that impact infection risk, including differences between pathogens. It is important to bear in mind that ventilation is only one control strategy that should be implemented as part of a layered approach to risk management.

All else being equal, higher CO₂ concentrations correspond to lower outdoor air ventilation rates and potentially an increased risk of airborne transmission. While CO₂ concentrations can be a useful qualitative indicator, they do not capture the impacts of reduced occupancy that is common in many buildings or the impacts of particle filtration and air cleaning on infection risk. Other factors impact exposure and transmission risk, such as the amount of virus in the air, which ~~won't~~ does not necessarily scale with CO₂, respiratory activity, and type of pathogen. Note also that if CO₂-based DCV is being employed, lower occupancy will reduce the outdoor air ventilation rate and presumably increase the risk of transmission, which is why several organizations have recommended disabling DCV systems or lowering their setpoints. These two strategies will have different impacts on outdoor air ventilations rate, with the former maintaining minimum outdoor air intake and the latter potentially increasing outdoor air ventilation.

Rather than ~~trying to relate desired ventilation rates to~~ using indoor CO₂ concentrations as an indicator of desired ventilation rates, several analyses of airborne infection risk have used CO₂ as an indicator of the “rebreathed fraction” of indoor air (the fraction of inhaled air ~~someone inhales~~ that was exhaled by someone else in the space). If the incidence of an airborne disease in the population and the infectious dose of the pathogen are known, these methods can be used to estimate the percentage of new infections for a particular scenario (Rudnick and Milton 2003, Peng and Jimenez 2021). These methods rely on multiple assumptions about the distribution of indoor CO₂ and infectious aerosol, the relative significance of different infection modes, and dose response relationships that are subject to large uncertainties. Consequently, they may not be highly accurate predictors of absolute risk.



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ATTACHMENT A- That ROB section 3.400 Manual of Procedures for Officers and Directors be removed from the ROB and considered as a separate document.



VOLUME 3

MANUALS AND PROCEDURES

(ROBs reflect Board principal motions as of July 2021)

VOLUME 3
MANUALS and PROCEDURES

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...Other items appear before the manual that will not be deleted.

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TABLE OF ABBREVIATIONS

BOD	Board of Directors of ASHRAE
CRC	Chapters Regional Committee; Chapters Regional Conference
CO	Coordinating Officer
DAL	Director-at-Large
DRC	Director and Regional Chair
ExCom	Executive Committee (Officers of the Society)
ExO	Ex Officio
PAOE	Presidential Award of Excellence
PEAC	President Elect Advisory Committee
ROB	Rules of the Board of Directors
RVC	Regional Vice Chair
SBL	Society Bylaw(s)
MC	Members Council
PC	Publishing and Education Council
TC	Technology Council

~~MANUAL OF PROCEDURES FOR OFFICERS AND DIRECTORS~~

~~SECTION 1 – GENERAL~~

~~1.1 – PURPOSE~~

- ~~1.1.1 This manual has been prepared to assist Officers and Directors of the Society. It defines the duties, responsibilities and authority of the various tasks by reference to the Society Bylaws (SBL) and the Rules of the Board of Directors (ROB). In addition, suggestions based on past experience and policy are included for guidance.~~
- ~~1.1.2 This manual will be periodically revised to include changes in the SBL and ROB and to reflect changes in the methods of operation in the Society.~~

~~1.2 – DEFINITIONS~~

- ~~1.2.1 The Board of Directors (BOD) is comprised of 30 voting members and one (1) non-voting (staff) member as follows (SBL 4.1)~~
 - ~~1.2.1.1 The Officers – each for one year term:~~
 - ~~a. President~~
 - ~~b. President-Elect~~
 - ~~c. Treasurer~~
 - ~~d. Four (4) Vice Presidents~~
 - ~~e. Secretary (non-voting staff)~~
 - ~~1.2.1.2 The Directors:~~
 - ~~a. Nine (9) Directors-at-Large – elected for three-year terms in a sequence of 3-3-3.~~
 - ~~b. Fifteen (15) Directors who also serve as Regional Chairs – elected for three-year terms in a sequence of 5-5-5. (17-06-25-13)~~
- ~~1.2.2 Where the term "Director" is used in this manual, it refers both to Directors-at-Large and to Directors and Regional Chairs.~~
- ~~1.2.3 Where the term "Coordinating Officer" (CO) is used, it refers to the duties of an Officer who is assigned a coordinating function for one or more of the standing and special committees of the Society.~~
- ~~1.2.4 Where the term "Board Ex-officio" (ExO) is used, it refers to the duties of a Director who is assigned to serve on a standing or special committee.~~
- ~~1.2.5 Where the term "staff" is used, it refers to the personnel employed by the Society to maintain the Society's headquarters operation.~~
- ~~1.2.6 The Executive Committee (ExCom) consists of the elected Officers of the Society and the Secretary who is a non-voting member. During intervals between Board of Directors meetings, the Bylaws, authorize the Executive Committee to exercise administrative powers of the Board of Directors. Matters of policy determined by the Executive Committee between meetings of the Board of Directors shall be submitted for approval to the Board of Directors at its next meeting. (SBL 7.3)~~
- ~~1.2.7 The Executive Vice President shall be appointed by the Board of Directors under an employment agreement approved by the Board of Directors, fixing salary, term of employment, and other conditions. The title "Executive Vice President" shall be an honorific, shall not constitute an elected office of the Society for any purpose, and may be changed by action of the Board of Directors. The Executive Vice President shall serve as Society Secretary and perform all duties normally associated with that office and those assigned by the Board of Directors or prescribed by these Bylaws. The Executive Vice President may take part in the deliberations of all committees except the Nominating Committee but shall not have a vote therein. (SBL 5.5)~~

~~1.2.8 The committees of the Society shall be the committees prescribed by the Society Bylaws. The Board of Directors may from time to time create other standing or special committees as it deems necessary to carry on the work of the Society and shall prescribe their powers and duties, and it may abolish any such committees. (SBL 7.1)~~

~~1.3 REFERENCE DOCUMENTS~~

~~1.3.1 Each candidate for the Board of Directors may expect to receive the following materials from the Secretary at least three months prior to taking office:~~

- ~~a. Certificate of Consolidation (on web site)~~
- ~~b. Bylaws (on web site)~~
- ~~c. Rules of the Board of Directors (includes Manual of Procedures for Officers and Directors)~~
- ~~d. Minutes of Board of Directors and Executive Committee meetings which were held during the year prior to the new Board member's term of office, and minutes for any additional period when the actions of such meetings have not been incorporated into the Rules of the Board.~~
- ~~e. Manual for Chapter Operations (on web site)~~
- ~~f. Manual for Conducting Chapters Regional Conferences (on web site)~~

~~1.3.2 Each Director nominee may expect to receive existing Rules of the Board (ROBs) and Manuals of Procedures for the Society committees and councils on which the Director will serve as well as minutes of the previous year's meetings of the council and of all committees to which the Director may be assigned as Ex Officio (ExO).. (12-01-25-08)~~

~~1.3.3 Upon assignment to a standing or special committee as Coordinating Officer (CO) or Ex officio (ExO), the Officer or Director may expect to receive the minutes of the previous year's meetings of the assigned council and committees.~~

~~1.3.4 Prior to taking office, each Officer and Director should become thoroughly familiar with this manual, the Rules of the Board (ROBs) of the council(s) on which each Officer and Director serves, and the complete Rules of the Board.~~

SECTION 2 OBJECTIVE AND PURPOSES

2.1 OBJECTIVE OF THE SOCIETY

~~— "The Society is organized and operated for the exclusive purpose of advancing the arts and sciences of heating, refrigeration, air conditioning and ventilation, the allied arts and sciences, and related human factors for the benefit of the general public, as defined in the Certificate of Consolidation. To fulfill its role, the Society shall recognize the effect of its technology on the environment and natural resources to protect the welfare of posterity." (SBL 1.3)~~

2.2 OBJECTIVE OF DIRECTORS

~~— 2.2.1. The objective of all Directors should be to contribute to the purposes of the Society in accordance with the responsibilities and authority of their positions.~~

~~— 2.2.2. An individual who is a Director is responsible for contributing to these purposes at the Society, regional and chapter levels.~~

2.3 ADMINISTRATIVE AND FISCAL YEAR

~~— 2.3.1 Each new administrative year of the Society shall begin immediately upon the adjournment of the Annual Meeting. The Board of Directors, councils and committees shall all change over from the "old" to the "new" membership and leadership when the new Board convenes for the first time. (ROB 2.101.003.1)~~

~~— 2.3.2 The fiscal year of the Society shall end on June 30 of each year. (SBL 10.1)~~

SECTION 3 GEOGRAPHIC ORGANIZATION

3.1 REGIONAL PLAN

- ~~— 3.1.1 Chapters of the Society shall be grouped in geographic areas by the Board of Directors, and each such area shall be designated as a region. The number and delineation of regions and changes therein shall be published in the official publication of the Society. Each region is served by a Director and Regional Chair (DRC). Regional boundaries on www.ashrae.org. Chapters are assigned to regions and shall be directed by Members Council.~~
- ~~— 3.1.2 The regional plan was established to provide direction to the chapters and allow democratic selection procedures for the participation of individuals in the Society organization, wider dissemination of technology, means for interchange of ideas among chapters, and the systematic solicitation and consideration by the members concerning the policies, procedures, and operation of the Society.~~

3.2 REGIONAL MEETINGS AND CONFERENCES

- ~~— A substantial portion of the operation of a region, particularly as reflected in the annual Chapters Regional Conference, is described in the Manual for Conducting Chapters Regional (Committee) Conferences. (For additional information, refer to [Section 5](#) of this manual.)~~

3.3 ASSISTANCE TO CHAPTERS

- ~~— Refer to [Section 6](#) of this manual.~~

SECTION 4 AUTHORITY AND RESPONSIBILITIES

4.1 AUTHORITY

- ~~— 4.1.1 The authority of the positions described herein is derived from the Certificate of Consolidation, the Bylaws of the Society, and the Rules of the Board of Directors.~~
- ~~— 4.1.2 The Certificate of Consolidation provides for worldwide operation of the Society with headquarters. The Board of Directors has established headquarters in Atlanta, DeKalb County, Georgia. The Certificate of Consolidation was executed at the merger of the two predecessor societies, ASHAE (formerly ASHVE) and ASRE, when both of their headquarters were in New York. The certificate states the purposes of the Society and imposes limitations and obligations on the Directors as referred to in appropriate portions of this manual. It allows the Society, through its Bylaws, to confer powers and authorities upon the Board of Directors in addition to the powers and authorities expressly conferred by the statutes of the State of New York and by the Certificate of Consolidation.~~
- ~~— 4.1.3 The Bylaws of the Society also impose limitations and obligations with reference to the Board of Directors in Article IV, to Officers in Article V, to Councils in Article VI, and to Committees in Article VII. The pertinent parts of these articles are referenced in this manual as required.~~
- ~~— 4.1.4 The Rules of the Board of Directors (ROB) implement the Society Bylaws (SBL) by defining policy and delegating authority. Some of these rules are referenced in this manual where pertinent.~~

4.2 RESPONSIBILITIES OF MEMBERS OF THE BOARD

- ~~— 4.2.1 The Board of Directors shall have full and complete management and control of the activities and funds of the Society and may adopt such rules and regulations for the conduct of its meetings, the exercise of its powers, and the management of the affairs of the Society as it may deem proper, subject to the provisions of the laws of the State of New York, the Certificate of Consolidation and these Bylaws. (SBL 4.4)~~
- ~~— 4.2.2 In this regard, Society Legal Counsel in a letter dated November 8, 1961 stated: "As you know, Officers and Directors of a corporation are trustees for the interests of the stockholders or members; as such, they are required to exercise that degree of care and prudence which would be exercised by the ordinarily prudent business person in connection with all the affairs of the corporation. They must also act in good faith. They cannot act on matters in which they have a self-interest contrary to the interest of the corporation. They represent the entire membership of the corporation as a whole, and cannot neglect or fail to perform their duties; otherwise they are personally liable for any damages or loss which occurs therefrom."~~
- ~~— 4.2.3 Since the Board of Directors is a deliberative assembly, the responsibility of each member is accomplished by considering and acting on motions of members and on communications presented to the assembly. This action takes the form of a declaration of policy or procedure, or an instruction to committees and staff, or a recommendation or delegation of authority to the President or Executive Committee.~~
- ~~— 4.2.4 Notice of any regular or special meeting of the Board of Directors shall be given in writing or by electronic communications to each director at least fifteen days before the meeting or transmitted orally at least forty-eight hours before the meeting. (SBL 4.8)~~
- ~~— 4.2.5 Attendance is mandatory at regular meetings of the Board of Directors which are held at the time of the Winter and Annual Meetings of the Society and at special meetings called by the President. Each Director should arrive on time and stay until adjournment unless excused by the President for unusual circumstances.~~
- ~~— 4.2.6 Full participation in the work of the Board requires a substantial amount of preparation to read communications sent to Board members prior to meetings, preparation of reports on assigned subjects, and advance preparation of motions which the Director may wish to present at the meeting. Each Director is expected to participate in discussions and vote in accordance with the overall interests of the members in the furtherance of the purposes of the Society.~~

~~4.2.7 Each Director should also be prepared to incur substantial expenses not allowable for reimbursement by the Society. Each Director should establish a personal time and expense budget after consideration of the responsibilities detailed herein.~~

~~4.2.8 Members of the Board of Directors should accept their obligations with the intent of advancing the purposes of the Society. In so doing, they will receive many benefits to compensate them for their time and expense. They will increase their technical knowledge, help to improve the design of products and systems, increase their positions as leaders, develop worthwhile friendships, and improve their capabilities in their professional fields.~~

~~4.2.9 The Board of Directors elects recipients of the following:~~

~~a. Honors and Awards:~~

ASHRAE Hall of Fame	2 or more negative votes defeats
Honorary Member	2 or more negative votes defeats
F. Paul Anderson Award	2 or more negative votes defeats
Pioneers in the Industry	2 or more negative votes defeats
Fellow	4 or more negative votes defeats
Louise and Bill Holladay Distinguished Fellow Award	4 or more negative votes defeats
Andrew T. Boggs Service Award	4 or more negative votes defeats
ASHRAE Award for Distinguished Public Service	4 or more negative votes defeats

~~b. Other recipients of Society-level awards.~~

~~c. Eight members and eight alternates to serve on the Nominating Committee of the Society (SBL 7.6). Nominations are submitted to the Board by a three-person BOD subcommittee appointed by the President.~~

~~d. Members of the following councils: Technology and Publishing and Education. Nominations are submitted to the Board by a four-person BOD subcommittee appointed by the President.~~

~~e. Members of the Standards Committee (SBL 7.9). Nominations are submitted to the Board by a three-person BOD subcommittee appointed by the President.~~

~~f. Members of the Research Administration Committee (SBL 7.7). Nominations are submitted to the Board by a three-person BOD subcommittee appointed by the President.~~

~~g. Members of the Technical Activities Committee (SBL 7.8). Nominations are submitted to the Board by a three-person BOD subcommittee appointed by the President.~~

~~h. Members of the Handbook Committee (volume subcommittee). Nominations are submitted to the Board by a three-person BOD subcommittee appointed by the President.~~

~~i. Scholarship Trustees.~~

~~j. ASHRAE Foundation Trustees.~~

~~The timetable for nomination and election of members to councils and committees is in ROB Volume 3, *Election and Appointment Procedures*.~~

~~4.2.10 The current edition of *Robert's Rules of Order Newly Revised* should be observed for the orderly transaction of business at the meetings. This procedure generally requires the placing of a motion, the seconding of it, and a discussion followed by a vote. The degree of formality for the conduct of such meetings will be determined by the presiding officer. However, a certain amount of informality exists, and it is not necessary to adhere to every detail of strict parliamentary law that would be used in a larger assembly.~~

- ~~4.2.11 After a motion has been adopted by a majority vote of the Board of Directors, each member of the Board of Directors accepts the decision as the will of the majority and supports this point of view and the action taken to the best of the member's ability.~~
- ~~4.2.12 All fees and annual dues shall be fixed and payable as determined by the Board of Directors.
(SBL 2.18 and ROB Volume 3 *Dues, Fees, Privileges*)~~
- ~~4.2.13 The expenditure of the Society's funds is governed by the budget as approved, modified, or amended by the Board of Directors, and no additional expenditures shall be made without the approval of the Board of Directors.
(SBL 5.9)~~
- ~~4.2.14 The Board of Directors approves the selection of a certified public accountant who audits the accounts of the Society after the close of the fiscal year.
(SBL 11.3)~~
- ~~4.2.15 The Board of Directors may, by a two-thirds vote, remove a member of any committee.
(SBL 7.11)~~
- ~~4.2.16 Amendments to Bylaws of the Society must be approved by two-thirds of the members of the Board of Directors or by 300 voting members of the Society, of which no more than 150 of such voting members shall be from any one region, prior to vote by members of the Society.
(SBL 12.1)~~
- ~~4.2.17 The Board of Directors may refer to the Society any important question to be decided by a majority of the votes cast at a regular or special meeting of the Society. Such a referendum shall be used by the Board to advise it regarding any proposed action to take within its power. The Board of Directors shall not submit a referendum to the membership that is frivolous or would result in a violation of the law, the Certificate of Consolidation, these Bylaws or any fiduciary responsibility of the Society.~~
- ~~The Board of Directors may initiate such a referendum at its own discretion or when requested through a valid membership petition. A valid petition must be signed by not less than 300 voting members, of which not more than 150 of such voting members shall be from any one region. Such petition shall not be valid until the Secretary has certified the signatures of the petitioners. The Board must act on this petition no later than its first meeting once 60 days has elapsed from the time the Secretary has certified the petition as valid. The Board of Directors may clarify the question raised by the petition to make it suitable for a vote of the membership. The Board of Directors must submit to the membership a suitable question raised by a petition. The Board of Directors is required to include a summary of the information in the petition, as well as any position it has taken, along with the question.
(SBL 4.6)~~
- ~~4.2.18 Official stationery of the Society shall be used for official business of the Society.
(ROB 2.101.006)~~
- ~~4.2.19 An item "Executive Session" is included on the agenda of all regular meetings of the Board of Directors. During such a session only members of the Board of Directors and those individuals requested by the chair to stay shall be allowed to remain in the meeting room.~~
- ~~4.2.20 The Board of Directors may, by a two-thirds vote of all the members thereof, censure, suspend or expel any member if, in the opinion of the Board of Directors, the member is guilty of abuse or misuse of the privileges of the Society membership or of action prejudicial to the best interest of the Society.
(SBL 2.21)~~

~~4.3 COMMON RESPONSIBILITIES OF DIRECTORS~~

- ~~4.3.1 A Director serves as a member of the Board of Directors, as described in Article 4.2 of this Manual.~~
- ~~4.3.2 The Director is to participate in formulating recommendations to the Board of Directors concerning policies, procedures and operation of the Society.~~
- ~~4.3.3 Directors may be assigned as ex-officio members to all standing committees except the Nominating Committee and committees reporting directly to the Board (ROB 2.200.002.4). A Director may expect to be appointed as a Board Ex Officio (BOD ExO) of one or more committees, as a voting member of one council, and as a member of one or more BOD subcommittees.~~

- ~~4.3.4 For each committee to which a Director is appointed as Board Ex Officio, he/she shall keep the Coordinating Officer informed of any deliberations or resolutions of the committee which may affect the general policies of the Society.~~
- ~~4.3.5 The Board Ex Officio shall serve the assigned committees in an advisory capacity and shall provide liaison with the Board of Directors, the councils, and other committees. The Board Ex Officio shall assist the committee in preparing its recommendations to the council and the Board and present any motions to the council which are recommended by the committee. In turn, the Board Ex Officio shall interpret actions of the council and Board to the committee. At committee meetings the Board Ex Officio does not count toward a quorum and shall not vote.~~
- ~~4.3.6 The Board Ex Officio may request a committee chair to attend the Board meetings when the council chair or the Board Ex Officio presents the report (or part of the report) of the council. This practice is encouraged only in such instances where a direct exchange of information between the committee chair and the Board may be significant.~~
- ~~4.3.7 The Board Ex Officio shall provide support to his/her assigned committees as follows: (82-01-24-03)~~
- ~~a. Communication and interpretation of presidential goals.~~
 - ~~b. Guidance in fiscal planning.~~
 - ~~c. Assistance in preparation of annual objectives.~~
 - ~~d. Monitoring of progress toward completion of annual objectives.~~
 - ~~e. Assistance in developing action plans to achieve Strategic Plan objectives.~~
 - ~~f. Monitoring of progress toward completion of Strategic Plan objectives.~~
 - ~~g. Ongoing review of the committee's Rules of the Board (ROB) and Manual of Procedures (MOP). (92-06-28-5B)~~
- ~~4.3.8 The Board Ex Officio shall assess the committee's scope, operation, and personnel and shall suggest changes as needed.~~
- ~~4.3.9 The Board Ex Officio shall attend all meetings of his/her assigned committees and councils with the following exceptions: (12-01-25-14)~~
- ~~a. In cases of conflict with BOD meeting, the BOD meeting shall take absolute precedence.~~
 - ~~b. In cases of conflict between appointed committees, approximately equal amounts of time should be devoted to each committee in question.~~
- ~~4.3.10 The following time and expense figures are estimates. Actual time and money expended may vary depending on individual circumstances.~~
- ~~4.4.10.1 Annual time (excluding travel time):~~
- ~~a. Winter Meeting, usually late January, approximately 7 days.~~
 - ~~b. Annual Meeting, usually late June, approximately 7 days.~~
 - ~~c. Attendance at own CRC and others as assigned, approximately 3 days for each CRC.~~
 - ~~d. Council meetings during Winter and Annual Meetings. Councils may hold additional meetings in the spring and fall (usually one day per meeting).~~
 - ~~e. Standing or special committee meetings, usually one day per meeting.~~
 - ~~f. Review of material to be discussed at Winter and Annual Meeting, several hours per meeting.~~
 - ~~g. Study of qualifications of candidates for election by the BOD to councils and committees and for honors and awards, eight hours per year.~~

- ~~i. Special Board committee assignments. Time requirements vary widely with assignments, but an estimate is eight hours of personal time per day of committee meeting for analysis work, report writing, etc.~~

~~4.3.11 The mechanism for appointment of an ad hoc alternate Board ExO by the Board of Directors is as follows:
(83-06-29-19/94-06-26-04)~~

- ~~a. As soon as it becomes certain a Board ExO cannot attend a specific meeting(s) of the Board, the Director shall select a member (voting or non-voting) of the Council(s) having jurisdiction over the committee(s) on which the Director serves as Board ExO and shall make arrangements for the person to attend that meeting of the BOD as an ad hoc alternate Director, with voice but without vote.~~
- ~~b. In the case which the alternate Director is to represent a Director who serves on two councils, the choice of the council from which the alternate Director is chosen should be based on the importance and magnitude of the committee's reports to the BOD.~~
- ~~c. The alternate Director may participate in the discussions of the BOD, but may not place motions on the floor or vote.~~
- ~~d. The order of preference for selection of the ad hoc alternate Director should be:
 - ~~1. Current chair of one of the Society standing committees of the council, giving due consideration to the importance and magnitude of the committee's reports to the Board.~~
 - ~~2. Past member of one of the Society standing committees of the council, who is currently serving as an Elected member of the council representing that committee.~~~~
- ~~e. Former member of the Board of Directors who is currently serving as an elected member of the council.~~
- ~~f. The ad hoc alternate Director selected should be urged to also attend any meetings of the committee(s) immediately preceding the meeting of the BOD even if the Director will also be present at those committee meetings.~~
- ~~g. If time permits, the staff should provide the alternate Director with all essential material. The elected Director should brief the alternate Director.~~

~~4.4.6.2 Annual Expenses:~~

- ~~a. Board of Directors – Transportation and other travel expenses not exceeding the approved maximum daily expense rate may be reimbursed for a maximum of seven days for attending Board meetings when requested.~~

~~A copy of the *Travel Reimbursement Policy* is in ROB Volume 1.~~

- ~~b. Directors attend their own CRC and others as may be assigned by the President, with transportation reimbursement.~~

~~4.4 – ADDITIONAL RESPONSIBILITIES OF DIRECTORS-AT-LARGE (DAL)~~

~~4.4.1 The Director at Large is expected to attend and participate in the CRC of the region in which he/she resides and others as may be assigned by the President (79-06-24-15). For the CRC in the region in which the DAL resides, when requested, the Director at Large shall work with the Regional Chair to present at that CRC information pertinent to the DAL's assigned committees or to the Society generally.~~

~~If an assigned Officer is prevented from attending a CRC, the Director at Large may be delegated to represent that Officer. The DAL shall then work with that Officer and the Regional Chair to develop appropriate program material and other participation.~~

~~c. Directors are responsible for all other expenditures, including but not limited to the following:~~

- ~~1. Council or committee meetings held at times other than Winter and Annual Meeting, usually requiring one or two nights of lodging plus meals and normal gratuities per meeting.~~
- ~~2. Participation by spouses at the Society level, approximately \$1,500.00 per year.~~
- ~~3. Secretarial assistance – filing, report typing, copy work, mailing and telephone activity.~~

~~4.5 ADDITIONAL RESPONSIBILITIES OF DIRECTORS AND REGIONAL CHAIRS (DRCs)~~

- ~~4.5.3 A Director and Regional Chair (DRC) directs the operations for his/her region. This includes detailing objectives and giving assistance to the Regional Vice Chairs, to the chapters in the region, and to potential new chapters being formed. The DRC also represents the interests of the region in all matters of Society importance.~~
- ~~4.5.4 The primary responsibility of the individual in the dual position of Director and Regional Chair is to represent the Society. Responsibility to the region is necessarily supplementary and secondary in accordance with the general corporation law and membership corporation law of the State of New York.~~
- ~~This primary responsibility does not relieve the Director and Regional Chair from the obligation to present the viewpoint of chapters in the region. Indeed the DRC is uniquely qualified to recognize their needs and to present their viewpoints. When the interests of members as a whole are under consideration, however, the DRC should, after considering the viewpoints of members in other regions, be prepared to act in the interest of the membership as a whole.~~
- ~~4.5.5 The Director and Regional Chair is the chair of the Chapters Regional Conference (Committee) for the region (SBL 7.5). The DRC is responsible for planning and conducting this meeting in accordance with the Manual for Conducting Chapters Regional Conference. Also, refer to Section 7 of this manual for coordination of activities of CRCs with the Members Council. The DRC is also responsible for the Orientation Session at a Chapters Regional Conference (see CRC Manual). (91-06-23-25)~~
- ~~4.5.7 The Director and Regional Chair helps in the resolution of problems before the Board. The DRC, in turn, interprets actions of the Board, as needed, at meetings of the Chapters Regional Committee and at chapter meetings. (10-06-30-15[6]/12-01-25-05)~~
- ~~4.5.8 The Assistant Regional Chair position should be used as a way of supporting a new DRC or preparing, training and educating a possible candidate for the position of DRC. (88-06-30-51/00-02-09-31/01-02-01-38/06-01-25-08/09-06-24-10/10-06-30-15[7])~~
- ~~4.5.9 Alternate for Director and Regional Chair (DRC) — In the absence of the Director and Regional Chair (DRC), the DRC may appoint the Assistant Regional Chair (ARC), or a Regional Vice Chair (RVC), or the Region Members Council Representative to serve as an alternate. This temporary appointment can be made in the event the DRC is ill or otherwise incapacitated, but has not permanently vacated the office. The DRC shall notify the President as soon as possible as to the dates and reasons for this temporary appointment. This alternate has voice but not voting rights at Board of Directors meetings. (12-01-25-07)~~
- ~~4.5.10 Each Director and Regional Chair shall appoint a Regional Historian to coordinate historical activities on a regional basis. The DRC is responsible for assisting in providing objectives and monitoring the operations of chapters in the region. The DRC is also responsible for assuring that the chapters adhere to the requirements of the Society Bylaws and Rules of the Board of Directors and that their operations are carried on in an effective manner, to advance the purposes of the Society. To do this, the DRC should establish and maintain effective communications with the chapters in the region. Suggestions for meeting these responsibilities are given in Section 6 of this manual. (78-06-28-07)~~
- ~~4.5.11 The Director and Regional Chair should enlist the aid of the regional officers to represent the DRC on some chapter visits, taking into account the chapter's needs and the specialty of the Regional Vice Chair. However, the DRC should visit each chapter personally not less than once every two years, and desirably each chapter each year in order to maximize effective communication. The Director and Regional Chair may also invite a regional officer to accompany the DRC on chapter visits when needed.~~
- ~~When a regional officer makes an official visit to a chapter on behalf of the DRC, a short report on the visit should be requested by the Director and Regional Chair.~~

- ~~— A visiting schedule by the DRC and/or the regional officers to each chapter in the region should be established early in the fiscal year (preferably at the Society Annual Meeting). At the same time the DRC should establish regional objectives and programs for the coming year. This will assist all those concerned in identifying the strengths and weaknesses within the region. (03-07-02-12)~~
- ~~— 4.5.12 It is the Director and Regional Chair's responsibility to explore the need for new chapters in the region, interest and assist members in forming such chapters, and secure the necessary approvals through the Members Council.~~
- ~~— 4.5.13 The Director and Regional Chair shall coordinate activities of Society committees with regional and chapter activities. Refer to Section 6, Assistance to Chapters.~~
- ~~— 4.5.14 The Director and Regional Chair shall clearly outline for the region's chapters the purpose of the Presidential Award of Excellence (PAOE), and list the specifics for each of the areas featured for the current year's award. The DRC shall use the Society President's announcement on the PAOE as a guide. The DRC shall monitor each chapter's progress throughout the year to help each chapter receive the PAOE. Additionally, it is the responsibility of the DRC to make the chapters aware of the requirements for regional awards and urge them to strive for those awards.~~
- ~~— 4.5.15 The Director and Regional Chair shall emphasize to the chapters the necessity of student membership and chapter relationships with local educational institutions to interest students in professional careers within the Society's sphere of interest, and in the Society. This is accomplished easiest when a student branch exists. The DRC should therefore give particular care to the student branches in the region, recognizing that students have little knowledge of the Society. They should be encouraged to continue their Society membership as they make their way into our industry.~~
- ~~— 4.5.16 It is the function of the Director and Regional Chair to encourage participation of chapter members in Society committees, including Technical Committees, Task Groups and Technical Resource Groups.~~
- ~~— 4.5.17 Communications are vital; they are discussed in Section 6, Assistance to Chapters. The Director and Regional Chair should insist that chapters reply promptly to communications which require response and should give chapters a deadline for responding. An up-to-date Chapter Information Questionnaire helps in directing the correspondence to the right member. It also lists a telephone number if personal contact is required.~~
- ~~— 4.5.18 Near the end of the Director and Regional Chair's term of office, when a successor has been nominated, the DRC should inform this person of current chapter and regional activities with the objective of providing an orderly transition. On completion of term of office, appropriate files should be transmitted to the successor.~~
- ~~— 4.5.19 Additional Annual Personal Time and Expense Requirements—Directors and Regional Chairs.~~
- ~~— This office is one of the most vital in the Society, and the most demanding of personal time and expense of all Director positions. The following time and expense figures are estimates. Actual time and money expended may vary widely depending individual circumstances.~~
- ~~— 4.5.19.1. Annual Time:~~
- ~~— a. Official chapter visitations—one day per visitation (average of 12 days per year exclusive of travel time).~~
- ~~— b. Chapters Regional Conference—two to four days per year, depending on the CRC program. The DRC should visit the host chapter at least twice prior to the meeting to advise and guide the host chapter on plans and arrangements. The DRC is responsible for preparation and mailing of instructional information for the delegates and the meeting agenda. These activities will require at least 40 to 50 hours per year.~~
- ~~— c. Planning meeting—beginning of fiscal year—one to two days.~~
- ~~— d. Routine correspondence, handling inquiries, providing guidance, etc. related to DRC's responsibilities to chapters—100 to 200 hours per year.~~
- ~~— e. One visit to another region's CRC each year—3-4 days (optional)~~

~~The total estimated time required, at home and away, is 50 to 60 days annually.~~

~~4.5.19.2 Annual Expenses:~~

~~a. Directors are responsible for all other expenditures, including but not limited to the following:~~

~~Council or committee meetings usually require one night of lodging, plus two or three meals and normal gratuities per special meeting (not every year).~~

~~Expenses for room, meals, etc. related to official chapter visitations vary widely with geographical locations and distance of chapter from the DRC's home.~~

~~Same as above item also applies to CRCs.~~

~~Required trips to Regional Conference Host Chapter prior to CRC to advise chapter on plans and arrangements—lodging and meal costs. (92-01-29-34B)~~

~~One visit to another region's CRC each year—lodging, registration, and meal costs. (92-01-29-34B)~~

~~Participation by spouses at regional and Society levels plus visits to other CRCs—approximately \$1500/year.~~

~~Secretarial assistance—filing, report typing, copy work, mailing, telephone activity.~~

~~Regional newsletters—some 4 to 8 per year, plus distribution to about 40 others—Board of Directors, Regional Vice Chairs, etc.~~

~~4.5.20 Regional Dinners (optional)—At each Society Meeting (Winter and Annual) the Director and Regional Chair is encouraged to arrange a time and place for a Regional Dinner for the ASHRAE members within the region. It has been the practice in recent years to hold these dinners on the Monday evening. (The DRCs are ideal organizers for this event.)~~

4.6 RESPONSIBILITIES OF OFFICERS

~~4.6.1 All officers of the Society shall perform the duties customarily attached to their respective offices under the laws of the State of New York, and such other duties and services incident to their respective offices as are delegated to them in Article V of the Bylaws and may from time to time be assigned to them by the Board of Directors. Some of these duties are described in the following paragraphs and articles.~~

~~4.6.2 Each officer also serves as a member of the Board of Directors, as described in Article 4.2 of this manual.~~

~~4.6.3 Each officer also serves as a member of the Executive Committee. The operation of the Executive Committee is described in Section 9, Executive Committee, of this manual.~~

~~4.6.4 Each of the President-Elect, Treasurer and the four Vice Presidents serves as chair or vice chair of a council. Council operations are described in Section 7 of this manual.~~

~~4.6.5 Every officer can expect to have secretarial expenses in connection with the duties of office.~~

~~4.6.6 Within the limits of their professional and personal obligations, spouses of officers are encouraged to participate in the following events:~~

~~A. The spouse of the President of the Society:~~

~~(1) All domestic and international business trips~~

~~(2) Executive Committee meetings, if requested~~

~~(3) ASHRAE Winter Meeting~~

~~(4) ASHRAE Annual Meeting~~

~~B. Spouses of officers other than the President:~~

- ~~(1) Executive Committee meetings, if requested~~
- ~~(2) ASHRAE Winter Meeting~~
- ~~(3) ASHRAE Annual Meeting~~
- ~~(4) Assigned Chapters Regional Conferences (CRCs)~~
- ~~(5) Meetings where the officer substitutes for the President~~

~~C. Spousal participation may include the following:~~

- ~~(1) Attend general business sessions as well as special sessions presented especially for spouses~~
- ~~(2) Attend social functions to which spouses are invited~~
- ~~(3) Attend tours arranged for companions~~

~~4.6.7 Guidelines for reimbursement of travel expenses for officers and spouses are in ROB Volume 1, Travel Reimbursement Policy.~~

~~4.6.8 The word "spouse" as used in the Manual of Procedures for Officers and Directors shall be a marital partner or other companion in a committed relationship. (02-06-23-10/09-06-21-06)~~

~~4.7 RESPONSIBILITIES OF COUNCIL CHAIR (COORDINATING OFFICER)~~

- ~~4.7.1 Each of the officers serves as Coordinating Officer (CO) to one or more committees as described in ROB 2.200.002. (07-03-25-14)~~
- ~~4.7.2 The council chair or CO shall be available to the committee for advice and assistance and shall report any problems to the President or the Executive Committee. (77-06-26-07/78-02-01-15/87-06-28-19) The council chair or CO should annually review the budget, the four-year plan and the objectives of each committee and make recommendations to the President-Elect concerning size limitations, fiscal concerns and activities of the committees. The purpose of such reviews is to optimize committee size and effectiveness and assure that each committee of the Society is useful and functioning in the manner described by the Rules of the Board.~~
- ~~4.7.3 The council chair or CO shall receive copies of the minutes of all meetings and all pertinent correspondence to and from the Chairs of all committees assigned to that council chair or CO.~~
- ~~4.7.4 The council chair or CO shall serve in an advisory capacity and as a communicating link to the President and/or Board of Directors for the council and the committees assigned to the council chair or CO.~~
- ~~4.7.5 It is desirable, where possible, for the council chair or CO to attend at least a portion of each assigned committee meeting. This will allow the entire committee membership to meet and have an opportunity to converse with the council chair or CO. (91-06-23-25)~~
- ~~4.7.6 Specific coordinating committee assignments will be made by the President with the approval of the Board of Directors (ROB 2.200.002). Typical assignments are shown in the Society structure chart. (Appendix B)~~

~~4.8 RESPONSIBILITIES OF TREASURER~~

- ~~4.8.1 The Treasurer shall have custody of the funds of the Society and the Society's books of account, which shall be open to the inspection of any member of the Board of Directors. (SBL Sec. 5.6)~~
- ~~4.8.2 The Treasurer is an officer, a member of the Executive Committee, a member of the Board of Directors, and the duties include those heretofore described in other sections of this document, as well as those outlined in the following paragraphs:~~
- ~~4.8.3 The Treasurer shall chair the Finance Committee. (09-01-28-26) (See also SBL 7.4)~~
- ~~4.8.4 The Treasurer shall be a member of the Investment Subcommittee, which shall also include the Chief Staff Officer and the Comptroller. (ROB Volume 2, Finance Committee)~~
- ~~4.8.5 The Treasurer shall invest the funds of the Society in accordance with the decisions of the Investment Committee. The Investment Committee will operate according to the current Rules of the Board. (ROB Volume 2, Finance Committee)~~
- ~~4.8.6 The Treasurer signs certain financial instruments of the Society.~~
- ~~4.8.7 Annual time and expenses of the Treasurer will generally be related to the following commitments: (91-06-23-25)~~
 - ~~a. Winter meeting—approximately 8 days.~~
 - ~~b. Annual Meeting—approximately 8 days.~~
 - ~~c. Executive Committee meetings—generally three days each, twice a year in addition to Winter and Annual Meetings.~~
 - ~~d. Special Board of Directors or committee meetings—one day per meeting.~~
 - ~~e. Finance Committee meetings that are not concurrent with the above meetings—two per year.~~
 - ~~f. Investment Committee meetings—generally two meetings per year, one day each concurrent with Finance Committee meeting.~~
 - ~~g. Preparation of the budget, correspondence, and general preparation—approximately 300 hours per year.~~

- ~~_____ h. Attendance and participation at three Chapters Regional Conferences and attendance at Treasurer's own CRC each year—three days each.~~
- ~~_____ i. Review of material to be discussed at the Winter and Annual Meetings—thirty hours per meeting.~~
- ~~_____ j. Review of material for ExCom meetings—twenty hours per meeting.~~

~~4.9 RESPONSIBILITIES OF VICE PRESIDENT~~

- ~~4.9.1 The Vice Presidents, in order of seniority as members of the Society, act for the President, the President-Elect and the Treasurer in the event of their absences. (SBL Sec. 5.8)~~
- ~~4.9.2 A Vice President is an officer, a member of the Executive Committee, a member of the Board of Directors, and the duties include those heretofore described in other sections of this document, as well as those outlined in the following paragraphs.~~
- ~~4.9.3 One or more of the four Vice Presidents, as appointed, serves as a member of the Finance Committee.~~
- ~~4.9.4 One Vice President serves as chair of each council except Members Council. (ROB 2.302.001.1 and 2.303.001.1)~~
- ~~4.9.5 Each Vice President may expect to be appointed by the President to one or more special presidential committees established to develop information for a specific response or policy for the Society. The Vice Presidents may also be appointed to represent the Society at meetings of other organizations.~~
- ~~4.9.6 The Vice Presidents will be expected to assist the President and the President-Elect in the selection of nominees for committee assignments and to provide evaluation comments on committee performance.~~
- ~~4.9.7 Annual time and expenses of a Vice President will generally be related to the following commitments: (91-06-23-25)~~
 - ~~a. Annual Meeting—approximately 8 days.~~
 - ~~b. Winter Meeting—approximately 8 days.~~
 - ~~c. Executive Committee meetings—generally two or three days each, twice a year in addition to Winter and Annual Meetings.~~
 - ~~d. Council meetings which may be held in the spring and fall (one VP only and usually two days per meeting) in addition to the regular council meetings at the Winter and Annual Meetings of the Society.~~
 - ~~e. Special Board of Directors or committee meetings—one day per meeting.~~
 - ~~f. Finance Committee meetings which are not concurrent with the above meetings—two per year. (One or more VPs)~~
 - ~~g. Attendance and participation at three Chapters Regional Conferences and attendance at Vice President's own CRC each year—2½ to 3 days per conference plus report preparation.~~
 - ~~h. Special meeting assignments—6 days per year (varies).~~
 - ~~i. General correspondence and preparation—300 hours per year.~~
 - ~~j. Review of material to be discussed at the Winter and Annual Meetings—twenty hours per meeting.~~
 - ~~k. Review of material for ExCom meetings—twenty hours per meeting.~~

~~4.10 RESPONSIBILITIES OF PRESIDENT-ELECT~~

- ~~4.10.1 The President-Elect is the principal assistant to the President and shares the operating responsibilities as delegated by the President.~~
- ~~4.10.2 The President-Elect shall automatically succeed to the office of President at the conclusion of the President's term in office. (SBL 5.4)~~
- ~~4.10.3 If the President dies, resigns, or is removed from office, the President-Elect shall immediately become President and shall serve for the remainder of the term of his/her immediate predecessor. If the time served is less than six months, he/she shall also serve as President for the next Society year. (SBL 5.4)~~
- ~~4.10.4 The President-Elect is an officer, a member of the Executive Committee, and a member of the Board of Directors, and the duties include those heretofore described in other sections of this document, as well as those outlined in the following paragraphs.~~
- ~~4.10.5 The President-Elect serves as chair of the Members Council. Refer to Section 7 of this manual.~~

- ~~— 4.10.6 The President-Elect serves as chair of the President-Elect Advisory Committee.~~
- ~~— 4.10.7 The President-Elect is expected to prepare any changes planned for the Presidential Award of Excellence (PAOE).~~
- ~~— 4.10.8 The President-Elect may expect to be included in certain more important meetings between the President and staff.~~
- ~~— 4.10.9 Since the President-Elect will be expected to present the slate of committee appointments at the beginning of his/her term of office as President, actual preparation of this list must be made during the term as President-Elect. A minimum of eleven and a maximum of fourteen Directors shall be assigned to strategic opportunities as determined by the President-Elect.~~
- ~~— 4.9.10 For time commitments, refer to Article 4.10.~~

4.11 RESPONSIBILITIES OF THE PRESIDENT

- ~~— 4.11.1 The President is chair of the Board of Directors, chair of the Executive Committee, and Chief Executive Officer. The President is responsible for presiding at all meetings of the Society, for directing the staff, for designating council membership from the Board of Directors and the Chairs thereof, for designating committees and the Chairs thereof, with the approval of the Board of Directors, except for the Nominating, Standards, Research Administration, Technical Activities, and Handbook Committees, and the elected members of the Technology and Publishing & Education Councils, who will be selected or elected in accordance with Society Bylaws and Rules of the Board. The President directs the work of councils and committees with the assistance of the other officers. The President may also appoint any person or persons to serve in a consulting capacity to any standing or special committee except the Nominating Committee (SBL 7.2 and ROB). The President represents the Society at a variety of meetings, conferences, interviews, etc., throughout the year as President.~~
- ~~— The President should take great care in utilizing Directors and Regional Chairs in making subcommittee assignments in view of the great workload they already have. When making such subcommittee appointments to the Board of Directors, the President should utilize, whenever possible, past DRCs as well as current DRCs and Directors at Large. — (75-06-21-24)~~
- ~~— 4.11.2 The President's duties as an officer and chair of the Board of Directors include those described in other sections of this document, as well as those outlined in the following paragraphs.~~
- ~~— 4.11.3 The President signs certain financial instruments of the Society.~~
- ~~— 4.11.4 A detailed insight into the activities and commitments of the President is given in the following paragraphs.~~
 - ~~— 4.11.4.1 Regional Conferences are highlights of the presidential year. Conduct of the President should be such that the occasion will be memorable to the host chapter and delegates as well.~~
 - ~~— 4.11.4.2 At Society meetings, the time of the President and President-Elect will be well-occupied with Board and committee meetings and other official functions. Executive Committee and Board meetings take precedence, but meetings of committees coordinated by the two officers should be attended, if not in conflict. Social functions should be attended, and officers and their spouses should "circulate" at receptions.~~
 - ~~— 4.11.4.3 The President is installed in office at the President's Luncheon during the Annual Meeting. The incoming President will prepare an address (which is given at the President's Luncheon), outlining plans for the year and listing the subjects to be emphasized during the term. — (92-07-02-32E)~~
 - ~~— 4.11.4.4 The President is the principal speaker at the Presidential Luncheon at the Winter Meeting and is the Plenary speaker at the Annual Meeting at the end of the term. (92-07-02-32E) These talks may be in the form of a report to the membership, or they may express policy on a subject of major interest to the Society or the industry. These talks are published in the Journal. The President also is expected to prepare several talks and speeches during the year as President.~~

~~4.11.4.5 At Society Meetings, the President is furnished a suite at the meeting hotel. This should be considered a courtesy to the Society rather than to the President, who may use the facilities for small meetings, receptions for honored guests or other functions which seem appropriate.~~

~~4.11.4.6 Leadership Transfer Guidelines:~~

- ~~a. Decisions for all events not specified by ROBs up to the official closing should be made by the outgoing President.~~
- ~~b. Titles used, whether written or spoken, shall either be the "outgoing" titles or shall be prefaced by "incoming" when it seems more appropriate to refer to the new position.~~
- ~~c. All installation statements shall include the clause "effective at the close of this Annual Meeting."~~
- ~~d. "Official closing" of the meeting shall be clearly specified so as to occur at the first meeting of the incoming (new) Board of Directors.~~
- ~~e. Titles used shall change after "closing."~~
- ~~f. "Control" shall switch to incoming officers at the "official closing."~~
- ~~g. The presidential suite should be officially under the control of the outgoing President until he/she departs from the hotel, but with a clear understanding that the incoming President may schedule special meetings and new Executive Committee events in the suite if he/she so chooses. Such events/meetings should, however, be coordinated with the outgoing President.~~
- ~~h. Questions of the time for presidential speeches fall under "a" above, but courtesy dictates that it be a joint decision.~~
- ~~i. At the official installation, the President and President Elect should exchange pins; ribbons (of office) should be exchanged at the official closing of the meeting as defined in Paragraph "d" above.~~

~~4.11.4.7 Although regional meeting attendance is shared among the President, the President Elect and the Treasurer, the travel schedule is heavy. Each of these officers will expect to travel to two Society meetings, two Executive Committee meetings, and approximately four Chapters Regional Conferences. Other travel requests may include chapter charter meetings and meetings of other organizations. Such attendance, while not mandatory, may be in the best interest of the Society; some requests can be covered by staff. (91-06-23-25)~~

~~4.11.4.8 The travel requirements may be estimated at: (91-06-23-25)~~

2 Society Meetings @ 9 days	18 days
5 Regional Meetings @ 4 days	20 days
2 Executive Committee @ 3 days	6 days
Visits to Society Headquarters	18 days
Intersociety and International Visits	30 days
	92 days

~~4.11.4.9 The principal obligation upon high office in the Society is the free giving of time.~~

~~4.11.4.10 At meetings, the duties of the President are clear: The President chairs certain meetings and attends certain functions. Between meetings, there is a steady flow of correspondence. DRCs and DALs send copies to the President of their many communications.~~

~~4.11.4.11 The President shall delegate some of the administrative work to the President Elect in an amount sufficient to acquaint the President Elect with the administrative procedure. The President shall also include the President Elect in certain more important meetings with staff. (67-02-02-21)~~

~~4.11.4.12 While the day-to-day operations of the Society are staff responsibilities, the President represents the membership, and the President's experience and counsel should be used wherever indicated. Frequent communication to and from staff will keep policy matters straight and avoid misunderstanding.~~

~~4.11.4.13 All correspondence should be handled as promptly and systematically as possible. Due to the heavy load of correspondence, the President (and President Elect) should have secretarial services available in the amounts required to handle these requirements. Some correspondence is handled by headquarters staff, but most must be handled from the home office of the President (or President Elect).~~

~~4.11.4.14 At the end of the Presidential year the President becomes a Presidential Member.~~

~~4.11.4.15 Policies governing reimbursement of expenses are in *Travel Reimbursement Policy* (ROB Volume 4).~~

~~4.12 RESPONSIBILITIES OF THE IMMEDIATE PAST PRESIDENT~~

~~In the year immediately following the Presidency, a Presidential Member will serve as Vice Chair of the Nominating Committee (and Chair of the Nominating Committee the second year after his/her term as President).~~

SECTION 5 REGIONAL MEETINGS AND CONFERENCES

5.1—DEFINITIONS

- ~~5.1.1 Regional Meetings: The term Chapters Regional Committee (CRC) designates a business meeting of the delegates of the chapters in a region. Workshop-type discussion may be included.~~
- ~~5.1.2 Regional Conference: A Chapters Regional Conference includes both a CRC meeting and a minimum period of three hours set aside for technical sessions and field trips plus four (4) workshops of four hours' duration each, led by the six Regional Vice Chairs. (Chapter Technology Transfer, Grassroots Affairs, Membership Promotion, Research Promotion, Student Activities, Young Engineers in ASHRAE)~~

5.2—REFERENCE

- ~~5.2.1 Both regional meetings and regional conferences are described in the Manual for Conducting Chapters Regional Conference (CRC Manual).~~
- ~~5.2.2 Each DRC should become familiar with this Manual to determine the DRC's responsibilities for these activities.~~

5.3—ATTENDANCE

- ~~5.3.1 There shall be present at each Chapters Regional Committee meeting two Society officers, including, if possible, the President, the President Elect or the Treasurer; all such official attendees' travel expenses shall be reimbursed in accordance with the Travel Reimbursement Policy. The "team" will usually be headed by the President, the President Elect or the Treasurer.~~
- ~~5.3.2 A chapters regional conference is an important occasion; the host chapter will have prepared for it at least a year in advance. Each of the assigned "team" should feel obligated to attend all planned functions. If bus trips are arranged, they should go "with the crowd," rather than by private car. At receptions and cocktail hours, they should "circulate," meeting everyone present, if possible. During business sessions, they should be prepared to answer delegates' questions.~~
- ~~5.3.3 Social events will frequently include a banquet and a luncheon. A prepared talk by the President, the President Elect or the Treasurer is expected at one of these functions, and by the other "team member" at one of these or other major functions of the regional conference. These talks may be on Society affairs or progress. Although such a talk may contain paragraphs presented elsewhere, spontaneity will be improved if a separate presentation, preferably with new data, is prepared for each occasion.~~
- ~~5.3.4 The number of such assignments will vary with the office and with the requirements and specific availability of staff participation. The President, the President Elect and the Treasurer may expect to attend three to four such meetings each; the Vice Presidents will probably attend three, in addition to their own regional conferences, special meetings and optionally, those which may immediately precede or follow an Executive Committee meeting.~~
- ~~5.3.5 A Director and Regional Chair nominee may attend one CRC in another region prior to beginning his/her three-year term. Each Director and Regional Chair is authorized to attend a maximum of two regional conferences in another region during the first two years of the three-year term. (12-01-25-11[9])~~
- ~~5.3.6 The incoming Regional Chair nominee shall substitute for the outgoing Regional Chair at a CRC meeting of his/her choice in a region other than his/her own in the spring of the year. (74-02-07-27)~~
- ~~5.3.7 The Regional Chair shall be responsible for inviting and directing the Nominating Committee Member, Alternate, and newly-elected Member and Alternate to attend all meetings of the CRC, including the caucus and executive session, and the Manual for Conducting Chapters Regional Conferences shall be revised to reflect this change. (74-02-07-29)~~

~~5.3.8 The Regional Chair shall have the option of sending the General Chair Designate from the Host Chapter to a CRC Meeting in his/her own or another region, if the Regional Chair deems it beneficial to the region, and transportation expenses shall be paid. (74-06-27-25)~~

~~**5.4 REPORT (97-01-29-18)**~~

~~5.4.1 It is the responsibility of the Vice President attending a chapters regional conference to prepare a report on the conference. The report should cover such subjects as conference announcement, protocol, business meetings, technical sessions, workshops, social activities, arrangements, or any other aspect of the conference on which the officer wishes to comment. The report should also include a list of the action items from the business meeting.~~

~~5.4.2 Following the conference, the officers in attendance should meet with the Director and Regional Chair, the chair of the CRC organizing committee, the next year's chair of the CRC organizing committee, and others as appropriate (the chair of the CRC organizing committee two years into the future, visiting Society BOD members, and ASHRAE staff) to discuss the conference, its strengths and areas where and how it could be improved. The Director and Regional Chair and the chair of the CRC organizing committee should receive a copy of the officer's written report.~~

~~5.4.3 The written report should be distributed to all of the members of ExCom, and it should be an agenda item for the next meeting of the Executive Committee.~~

SECTION 6 ASSISTANCE TO CHAPTERS

6.1—MANUAL FOR CHAPTER OPERATIONS

- ~~—6.1.1 A Manual for Chapter Operations is furnished to the DRC and to chapter officers. This manual incorporates the ideas generated at the conference of the Members Council for the proper operation and direction of chapter activities.~~
- ~~—6.1.2 The DRC should assist the chapters in the use of this manual and stress the importance of complying with the procedures outlined therein. It should be followed in principle and any variations should be only those deemed essential because of local conditions.~~
- ~~—6.1.3 At the beginning of each new Society year the DRC should personally contact each incoming chapter president and determine that each has a manual, and that the other chapter manuals have been placed in the hands of the incoming chapter officers. The DRC should also stress at this time the importance of completing and mailing the Chapter Information Questionnaire.~~

6.2—CHAPTER MODEL BYLAWS

- ~~—6.2.1 Model Chapter Constitution and Bylaws have been approved by the Board of Directors.~~
- ~~—6.2.2 The purpose of the Model Constitution and Bylaws is to provide a Constitution and Bylaws that will meet the need of any chapter and still comply with the Certificate of Consolidation, Society Bylaws, the Rules of the Board of Directors, the New York State Not for Profit Law, and Federal and Georgia State Laws under which ASHRAE is administered.~~
- ~~—6.2.3 The Model Constitution and Bylaws are flexible in that they allow the chapter certain options in the selection of dates, the appointment of committees, the selection of committee members, and the methods of election. This flexibility is provided to accommodate the needs of chapters, regardless of their geographic location and size. The DRC should make sure that the chapter constitution and bylaws have been approved by Members Council, and, if they are not, that steps are taken to revise them in accordance with the Model Chapter Constitution and Bylaws. Copies of correspondence between chapters and Members Council should be sent to the DRC.~~
- ~~—6.2.4 Chapters' bylaws are updated every five years. Each DRC will receive a list of chapters in his/her region whose Bylaws have been updated and sent to the chapters for approval. DRCs should follow up with chapters to ensure that action is taken on the updated bylaws. The Procedure for Chapter Bylaws Updating is in Appendix C.~~

6.3—COMMUNICATIONS

- ~~—6.3.1 Communications between the DRC and the chapters in the region are necessary in order to keep the DRC advised of the activities of the chapters; and, in order that the DRC may give to the chapters information and advice which will enable them to improve operations.~~
- ~~—The "Chapter Information Questionnaire" is a valuable tool to assist the DRC, the various Regional Vice Chairs and various departments at headquarters in determining which individual in the chapter to direct correspondence to. The DRC must acquire these before the beginning of the Society Year on July 1 and distribute them to all pertinent parties. The DRC must ensure that the Chapters provide revised copies when changes have been made.~~
- ~~—6.3.2 The DRC must establish early in the term that "no answers" and "slow answers" from chapters to the DRC or the Regional Vice Chairs or other ASHRAE correspondents are not in the best interest of the chapters, the region, or the Society and represent unacceptable performance.~~
- ~~—6.3.3 Newsletters are used by the DRC for circulation to officers of the chapters within the region. The contents of such letters include decisions of the Board of Directors of the Society which are applicable to chapter operations; status of regional motions; Society activities which should be called to the attention of the chapters; and information~~

~~which will help chapters to schedule speakers, develop membership, improve programs, etc. A newsletter can provide an excellent medium of interchange among chapters. (Exchange of newsletters among DRCs also gives ideas for format and content.) (99-01-27-44)~~

~~6.3.4 Questionnaires may be necessary from time to time to obtain information on chapter activities necessary for coordination or information. These questionnaires may be used for the purpose of gathering information on membership dues, number and class of members in the chapter, cost of chapter activities, and the character of special activities.~~

~~6.3.5 Communications by telephone as well as by letter or electronic communications may be necessary, particularly for making arrangements for regional meetings and in coordinating activities of two or more chapters. (12-01-25-11)~~

6.4 VISITS TO CHAPTERS

~~6.4.1 Visits to chapters by the DRC, or by one of the regional officers should be made as frequently as is necessary, but not less than once per year. One visit per year should be considered official. A meeting with the chapter Board of Governors should always be a part of the official chapter visit. (92-01-29-34A/03-07-02-12)~~

~~6.4.2 Visitation with the members of the Board of Governors and with the members of the chapter provides the most effective means of measuring the quality of leadership being provided, the quality of meeting programs, and the attitude of the membership.~~

~~6.4.3 The meeting with the Board of Governors should be for the purposes of assisting them with the operations of the chapter and of resolving chapter problems. Informality and exchange of information should be the keynote of such meetings.~~

~~6.4.4 At meetings with the Board of Governors and with officers, the following subjects are typical of items that should be discussed:~~

~~a. Chapter membership and development.~~

~~b. Chapter programs, securing speakers, arranging social meetings, etc.~~

~~c. Chapter finances.~~

~~d. Chapter educational programs, cooperation with student branches and chapter support for scholarships.~~

~~e. Emphasis on the necessity of student membership and chapter relations with local colleges to interest students in Society and professional careers.~~

~~f. Encouragement of chapters to have meaningful continuing chapter seminars and educational programs for all levels of ability of chapter membership, including student membership.~~

~~g. Research programs, research resources and fund-raising activities.~~

~~h. Special projects of a regional or international scope.~~

~~i. Consideration of members for service on Society committees, for honors and awards, for recommendation to the Nominating Committee, etc.~~

~~j. Any other appropriate item of conduct or operation of the chapter, the region, and the Society at large, such as Society goals, chapter membership attendance at Society meetings and CRC meetings, chapter scholarship programs, etc.~~

~~In summary, reviewing the current status of the chapter relative to achieving a par performance on PAOE points in the various categories provides lively discussion with a clear objective.~~

~~6.5 REGIONAL COMMITTEES (optional)~~

~~6.5.1 Regional committees or subcommittees of CRCs may be established as standing or special committees, as required by circumstances. The DRC may appoint such committees, soliciting approval of the Members Council when such approval is deemed necessary or desirable.~~

~~6.5.2 Typical subjects which may be considered by regional committees are:~~

- ~~a. Financing of regional meetings.~~
- ~~b. Programs for regional meetings.~~
- ~~c. Regional sponsorship of a scholarship fund.~~
- ~~d. Regional sponsorship of invitations for meetings of the Society in the regions and for cooperation of chapters in assisting the Conferences and Expositions Committee for such meetings. (12-01-25-11)~~
- ~~e. Regional historical programs.~~

~~6.6 SPECIAL PROGRAMS~~

~~6.6.1 The DRC may be called upon from time to time to sponsor special programs in the region.~~

~~6.6.1.1 Liaison with the principal committees of the Society is an example. For example, the Membership Promotion Committee has a member who is responsible for liaison with chapters in one specific region through the DRC for the purpose of following up on delinquent members.~~

~~6.7 CHAPTER RESPONSIBILITY AS HOST CHAPTER TO SOCIETY~~

~~6.7.1 The DRC should assist the chapter in his/her region selected as Host Chapter for an Winter and Annual Meeting of the Society. The DRC should provide advice and counsel on the responsibilities of the Host Chapter and the proper organization to accomplish these responsibilities. The DRC should see to it that the chapter coordinates its activities with the assigned Society staff members. The DRC should sit at the head table during the luncheon and dinner meeting and make suitable presentations or addresses as required.~~

~~6.7.2 The Manual for Host Chapters for Society Meetings should be used by the DRC as the authority for the necessary chapter activities.~~

~~6.8 CHAPTER OR REGIONAL ACTIVITIES RELATING TO OTHER ORGANIZATIONS~~

~~6.8.1 It is the responsibility of the DRC to review the activities of the chapters in the region and to instruct the chapters in order to avoid any chapter or regional membership or affiliation with any organization where such a liaison would compromise the following regulations:~~

~~a. The following provisions of Section 501(c)(3) of the Internal Revenue Code (upon which the Society's Certificate of Consolidation and Bylaws are based):~~

- ~~1. Organized and operated exclusively for "...scientific ...or educational purposes...."~~
- ~~2. No substantial part of the activities are related to propaganda or attempts to influence legislation.~~
- ~~3. No participation in any political campaign.~~

~~b. The purposes listed in item 7(1) of the Certificate of Consolidation.~~

~~6.8.2 No chapter or region should join or affiliate with any organization if there is any appearance of the organization being engaged in commercial activities. (Manual for Chapter Operations)~~

~~6.8.3 The only exposition activities that the Society will sponsor in the U.S. shall be the International Air Conditioning, Heating and Refrigerating Exposition jointly sponsored with AHRI. Participation in any form by a chapter or region of the Society in an Exposition in the U.S. is contrary to the contractual agreement with the International Exposition Company, and is not permissible, except as allowed by the Manual for Chapter Operations or as stipulated in License and Royalty Agreement between the American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. and the Air Conditioning and Refrigeration Institute and the International Exposition Company, Incorporated dated January 18, 1990 and any amendments thereto. (ROB 2.104.019.2)~~

~~6.8.4 Chapters may co-sponsor conferences subject to the *Guidelines for Co-sponsored Conferences* (ROB Volume 3)~~

SECTION 7 COUNCILS

7.1—ESTABLISHMENT

- ~~7.1.1 The Board of Directors approved the establishment of councils in 1980. Councils were established for the following purposes:~~
 - ~~7.1.1.1 To implement Board policy and administer activities of the committees within the organizational structure of the councils;~~
 - ~~7.1.1.2 To develop policies and long-range plans for the committees within the jurisdiction of the council;~~
 - ~~7.1.1.3 To approve funding of programs recommended by the committees within the limitations of the council ROB 2.300.006 and monitor ongoing programs of the committees.~~

7.2—Council Membership

- ~~7.2.1 There are three councils reporting to the Board of Directors. Each council has standing committees reporting to it and may also have special committees and subcommittees that report to it.~~
- ~~Refer to Society Structure (Appendix B and ROB Volume 2) for lists of committees reporting to each council, quorum requirements, numbers of authorized meetings, and fiscal limits.~~
- ~~7.2.2 Two Vice Presidents chair the Publishing & Education and Technology Councils, and the President-Elect chairs Members Council. The Treasurer is vice chair of Members Council; vice presidents are vice chairs of the other councils.~~

7.3—Council Procedures

- ~~For specific details related to council election procedures, operating procedures, etc., refer to *Election and Appointment Procedures* in ROB Volume 3.~~
-

SECTION 8
REPRESENTATIVES AND AMBASSADORS

8.1 REPRESENTATIVES

8.1.1 REPRESENTATIVES NOMINATED BY TECHNICAL COMMITTEES

- ~~A. Appointments to represent the Society in a specific research area shall be made by the chair of the Research Administration Committee, and those to represent a specific technical area (except standards) shall be made by the chair of the Technical Activities Committee, with the advice of the TC, TG or TRG or panels at interest, with the advice of the Director of Technology and with the approval of the Coordinating Officer. (ROB 2.421.003.3)~~
- ~~B. Individuals appointed to represent the Society in a specific standards area and/or codes area shall be made by the chair of the Standards Committee, with the advice of the cognizant Standards Project Committee or the chair of the Code Interaction Subcommittee and the Manager of Standards, and approved by the Coordinating Officer. (91-06-23-15/09-10-24-05)~~
- ~~C. Instructions for their voting shall be given to them by their committee with the proviso that, if there is a new activity, this will first be reported to the Board for its consideration so that the Board will not be giving blanket delegation of authority, but will have approved in advance the character, scope and general contents of this activity. Thereafter, it will be the duty of the committee involved to instruct the intersociety representative as to how to vote to accomplish this. (91-06-23-15)~~
- ~~D. The Board ex officio member shall be responsible for referring to the Board of Directors actions taken by the intersociety representatives. (62-06-27-07)~~

(See also RAC, TAC and Standards Committee ROB's.)

8.1.2 PRESIDENTIAL REPRESENTATIVES

- ~~A. The Operating Procedure for Presidential Representatives dated 6/22/74 is adopted. (74-06-23-20/91-06-23-13)~~
- ~~1. Authorization: By appointment of the President at the Executive Committee Meeting of June 21, 1974, a special class of Presidential Representatives was established. They will be designated Presidential Representatives, and they will speak on behalf of the President.~~
- ~~2. Assignments: Normally the assignments given to Presidential Representatives will be as liaison members to other organizations, especially when decisions on policy matters are expected. Other assignments, however, would be as guests at meetings of other organizations, or as a speaker or participant at conferences.~~
- ~~3. Authority and Responsibility: When the assignment is given to the Presidential Representative, the president shall define the scope of authority and the purpose of the assignment. If it is expected that the Presidential Representative is to vote or speak on behalf of ASHRAE regarding policies that have not been definitely determined by ASHRAE, the Executive Committee shall direct him/her on the position he/she is to take.~~
- ~~4. Report: Following each assignment, the Presidential Representative shall make a written report to the president.~~
- ~~5. Term of Appointment: The term of the Presidential Representative shall coincide with the term of the president who appoints him/her.~~
- ~~6. Eligibility: Any Full Member in good standing may be appointed as a Presidential Representative; however, it is preferable to appoint someone with stature and experience commensurate with the assignment. The president shall consider, therefore, Presidential Members, officers, present or past Directors, Fellows, or outstanding authorities in an appropriate field.~~

~~8.2 AMBASSADORS~~

~~A. The Board of Directors approved the Operating Procedure for ASHRAE Ambassadors as recommended by the Executive Committee at their meeting May 1-2, 1976, as follows: (76-06-27-02/91-06-23-16)~~

- ~~1. Purpose: To represent ASHRAE by promoting goodwill and improving relations between ASHRAE and the various international organizations with similar objectives and interests.~~
 - ~~2. Authorization: By appointment of the President at the Board of Directors Meeting of June 27, 1974, a special representative was established. The President later named the special representative "ASHRAE Ambassador."~~
 - ~~3. Procedure for Appointment: Whenever the Society learns that a member will be traveling to international countries without ASHRAE chapters, he/she may be invited by staff on behalf of the President to act as an Ambassador within the conditions of this operating procedure.~~
 - ~~4. Authority and Responsibility: When the appointment is given to the Ambassador, the President or staff shall define the scope of authority and the purpose to be fulfilled. The President, through staff, shall present the Ambassador with a letter of introduction, or credentials, suitable for presentation to the international organizations to be visited. Further, the Ambassador shall be provided with a kit concerning the formation of chapters. This kit would be left with the group visited by the Ambassador. The Ambassador will not vote or speak on behalf of ASHRAE regarding policies unless authorized by the President. (91-06-23-17)~~
 - ~~5. Report: Following each assignment, the Ambassador will make a written report to the President.~~
 - ~~6. Term of Appointment: The term of the Ambassador will coincide with the term of the specific trip involved.~~
-

SECTION 9
EXECUTIVE COMMITTEE (ExCom)

9.1—GENERAL

~~9.1.1 The Executive Committee shall consist of the President who shall be its Chair, the President-Elect, the Treasurer, the Vice Presidents, and the Secretary, who is a non-voting member. It shall meet at the call of the President or upon request of any two members of its members. (SBL 7.3)~~

~~9.1.2 It shall investigate and make reports and recommendations to the Board of Directors regarding matters relating to the Society or members thereof. During intervals between Board of Directors meetings, the Executive Committee shall exercise administrative powers of the Board of Directors. Matters of policy determined by the Executive Committee between meetings of the Board of Directors shall be submitted for approval to the Board of Directors at its next meeting. (SBL 7.3)~~

9.2—MEETINGS

~~9.2.1 Regular meetings of the Executive Committee are held at the time of the Winter and Annual Meetings, generally prior to and immediately after other scheduled meetings. Special meetings are generally held not less than twice a year during periods between Society meetings.~~

9.3—QUORUM

~~9.3.1 A quorum of the Executive Committee is six. The Secretary, a non-voting member, may be counted as part of this quorum. (90-02-11-03)~~

9.4—SUBCOMMITTEES

~~9.4.1 In order to sustain the ASHRAE/CIBSE relationship, a subcommittee of the Executive Committee shall be formed consisting of the President and the Chief Staff Officer. (ROB 2.106.001.6)~~

SECTION 10
LIMITATIONS AND RULES

10.1 CORPORATION LAW

- ~~10.1.1 As trustees representing the interests of the members of the Society, Officers and Directors must exercise that degree of care and prudence which would be exercised by the ordinarily prudent businessman in connection with the affairs of the corporation.~~
- ~~10.1.2 Officers and Directors must act in good faith and cannot act on matters in which they have a self interest contrary to the interest of the corporation.~~
- ~~10.1.3 Officers and Directors are liable personally for any damages or losses which occur from willful negligence or failure to perform their duties.~~

10.2 CERTIFICATE OF CONSOLIDATION

- ~~10.2.1 No Officer or Director may receive or be lawfully entitled to receive any part of the net earnings of the Society or any pecuniary profit from the operations of the Society except as may be authorized by the Board of Directors as reasonable compensation for services in effecting one or more of its purposes as the Board of Directors may determine.~~
- ~~10.2.2 Each Officer and Director will be indemnified by the Society against expenses actually and necessarily incurred by (the Officer or Director) in connection with the defense of any action, suit, or proceeding in which (the Officer or Director) is made a part by reason of being or having been an Officer or Director of the Society, except in relation to matters as to which (the Officer or Director) shall be adjudged in such action, suit, or proceeding to be liable for willful negligence, misfeasance, or misconduct in the performance of (the) duties of the office; such right or indemnification shall not be deemed exclusive of any other right to which (the Officer or Director) may be entitled under any Bylaw agreement, vote or otherwise.~~

10.3 RULES OF THE BOARD

- ~~10.3.1 Rules of the ASHRAE Board of Directors, authorized by Bylaws Section 4.4, are compiled annually by the staff of the Society from actions of the Board.~~
- ~~10.3.2 Rules of the Board are contained in the following four volumes:
 - ~~Volume 1 — Principles and Policies~~
 - ~~Volume 2 — Standing Rules~~
 - ~~Volume 3 — Manuals and Procedures~~
 - ~~Volume 4 — Operation and Administration~~~~

- ~~10.3.3 Changes to Rules of the Board — Proposed changes (additions and deletions) to Rules of the Board (ROBs) shall be submitted by committees, councils and Board members. Changes proposed by a committee shall be submitted through the body to which it reports; councils and Board members may submit proposed changes directly to the Board of Directors.~~

- ~~10.3.3.1 To propose a change to an existing ROB, present the current ROB with changes marked by double underlining to designate words proposed to be added and strikethrough to designate words proposed to be deleted. A proposed change, as a minimum, shall include the complete ROB number (e.g., 2.106.001.2), the proposed change(s) marked as indicated above, and the reason(s) for the change(s).~~

- ~~10.3.3.2 To propose a new ROB, present the wording for the new rule and include a statement indicating a recommended placement of the new rule within the ROB organization. Examples:~~

- ~~*It is recommended that this rule be placed in ROB Volume 1, Principles and Policies*~~
- ~~*It is recommended that this rule be placed in ROB Volume 2, Standing Rules*~~

~~10.3.3.3 To propose rescinding an existing ROB, include in the recommendation the ROB volume in which the rule is located, the rule number or other identification code, and the wording of the rule to be rescinded.~~

~~10.4 GUIDELINES FOR REVISIONS OR AMENDMENTS TO SOCIETY DOCUMENTS~~

~~10.4.1 Certificate of Consolidation—By application to the Secretary of the State of New York.~~

~~10.4.2 Bylaws—By vote of the Society membership.~~

~~10.4.3 Rules of the Board of Directors—By motions passed by the Board of Directors.~~

~~10.4.4 Model Constitutions and Bylaws—By motions passed by Members Council.~~

~~10.4.5 In case of a conflict, the Society documents are valid in the following order:~~

~~a. Certificate of Consolidation~~

~~b. Bylaws~~

~~c. Rules of the Board~~

~~ASHRAE REGIONAL BOUNDARIES AND CHAPTER LOCATIONS~~

~~Appendix A—Current map and list of chapters can be located at www.ashrae.org.~~

~~Appendix B—The organizational structure can be found at www.ashrae.org~~

APPENDIX C – PROCEDURE FOR CHAPTER BYLAWS UPDATING

(12-01-25-11[8])

The purpose of the model constitution and bylaws is to provide a constitution and bylaws that will meet the need of any chapter and still comply with the Certificate of Consolidation, Society Bylaws, the Rules of the Board of Directors, the New York State not-for-profit law, and Federal and Georgia state laws under which ASHRAE is administered. As such, the constitution and bylaws constitute a legal document which has been approved by the ASHRAE Board of Directors and reviewed by legal counsel.

The model bylaws are flexible in that they allow the chapter certain options in the selection of dates, the appointment of committees, the selection of committee members, and the methods of election. This limited flexibility is provided to accommodate the needs of chapters, regardless of their geographic location and size.

Acceptable deviations to the model bylaws have been published to permit additional options which are based on experience and changing times in order that the chapters are given the best possible basis for successful operation.

These are the steps which should be followed in updating chapter bylaws:

Step Responsible Action

1. Members Council Provide model constitution and bylaws and list of acceptable deviations;
2. Regional Chair Work with chapter president (at CRC or on chapter visit) to update bylaws.

If chapter accepts changes:

4. Chapter Board of Governors votes to accept changes; President signs and dates updated bylaws and returns to Headquarters.
5. Staff If chapter has indicated additional acceptable changes (see Deviations List), staff revises and returns bylaws to chapter for verification, final acceptance and signature.

If chapter requests changes or additions which are not on Deviations List:

6. Regional Chair Refer outstanding questions to staff liaison who refers to Members Council Charter and Bylaws advisor for resolution.
7. Members Council Provide explanation and ruling to Regional Chair who communicates explanation to chapter.
8. Chapter Repeat step 4.

If chapter does not accept ruling:

6. Chapter Appeal to Members Council who makes the final judgment. Direct questions concerning this procedure to Regional Chair or staff.

...Other items after before the manual that will not be deleted.

ATTACHMENT B - That ROB Volume 3 be renamed as Standing Rules for Membership.



VOLUME 3

MANUALS AND PROCEDURES
STANDING RULES FOR MEMBERSHIP

(ROBs reflect Board principal motions as of July 2021)

VOLUME 3

~~MANUALS and PROCEDURES~~ STANDING RULES FOR MEMBERSHIP

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- 3.100 GUIDELINES FOR ASHRAE CONFERENCES
- 3.200 DUES, FEES, PRIVILEGES
- 3.300 ELECTION AND APPOINTMENT PROCEDURES
- ~~3.400 MANUAL OF PROCEDURES FOR OFFICERS AND DIRECTORS~~
- 3.500 Hold for future use.
- 3.600 Hold for future use.
- 3.700 SOCIETY SCHOLARSHIP PROGRAM RULES
- 3.800 ASHRAE ASSOCIATES
- 3.900 MISCELLANEOUS PROCEDURES
 - 3.910 Hold for future use
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 - 3.960 Chapter Technical Publications
 - 3.970 Region-At-Large Sub-Region Chair Qualifications and Responsibilities
 - 3.980 Enforcement Procedures for Violation of the ASHRAE Code of Ethics

...Other items appear after the above that will not be deleted.

ATTACHMENT C - That ROB Section 2.200.006 be removed from the ROB as the O&D MOP no longer resides in Volume 3:

2.200 BOARD OF DIRECTORS

2.200.001 MEMBERSHIP

2.200.001.1

The membership of the Board of Directors is as defined in SBL 4.1.

2.200.001.2

(88-01-31-02)

The voting members of the Board of Directors are the President, the President-Elect, the Treasurer, the Vice-Presidents, one Director from each region and a number of Directors-at-Large as determined by the Board.

2.200.001.3

(90-02-14-10)

The approved number of Vice-Presidents is four (4).

2.200.001.4

(90-02-14-10)

The approved number of Directors-at-Large is nine (9).

2.200.001.5

(97-07-02-09)

All regional officers must reside within the region they represent.

2.200.002 ASSIGNMENTS

2.200.002.1

(63-11-09-23/67-02-02-17/73-02-01-41/87-06-28-19/88-06-29-19/90-02-11-02)

Each of the elected officers of the Society shall be assigned a coordinating function for one or more of the standing and special committees of the Society and, in this assignment, shall be termed a "Coordinating Officer."

2.200.002.2 Assignment of Coordinating Officer

(07-03-25-09)

The coordinating officer of each council and all committees that report to that council is the chair of the council. If the chair of a standing or special committee reporting directly to the Board is an officer, that officer shall serve as the committee's coordinating officer. For other standing bodies the President shall appoint an officer to serve as coordinating officer, who will normally be a member of that body, except when Rules of the Board dictate otherwise.

2.200.002.3

(77-06-26-07/78-02-01-15/87-06-28-19/02-01-13-15)

Directors on the BOD shall be assigned as ex officio members to all standing committees except CRCs, Nominating Committee and committees reporting directly to the Board or its Executive Committee.

2.200.003 GENERAL

2.200.003.1

(79-06-27-23)

All presidential and other special committees and subcommittees of the Board shall be terminated at the end of each Society year. The incoming President shall consider re-appointing or reconstituting these committees at his or her discretion.

2.200.003.2

(79-06-27-23)

The Board of Directors encourages and supports the idea that one of the Society officers attend the Annual Meetings of up to two of ASHRAE's Associates annually.

2.200.004 BUDGET

The Board shall approve the General Fund and Research Fund budgets at the Annual Meeting.

2.200.005 MINUTES

(11-07-21-04)

Approved Board of Directors minutes and attachments shall be posted on the ASHRAE website within 30 days after approval.

~~2.200.006 MANUAL OF PROCEDURES~~

~~The approved Manual of Procedures for Officers and Directors is located in Volume 3.~~

2.200.007 USE OF LETTER BALLOTS

(99-01-24-28/99-06-20-17/02-01-17-63B/04-06-30-03)

Between regular meetings of the Board of Directors, letter ballots are permitted under the following rules:

2.200.007.1 The President of the Society, and only the President, shall have authority to authorize Board vote by letter ballot.

2.200.007.2 At least 80% of letter ballots must be returned by the end of the voting period to constitute a legal vote. If a member returns a ballot but marks it as abstaining, this ballot counts toward the 80% returned.

2.200.007.3 For letter ballots in which Board members are asked to vote for or against a motion, the following rules shall apply:

- A. In order for a letter ballot motion to pass, a majority of the total voting membership and at least 2/3 of those voting must vote for the motion, unless other Rules of the Board require a higher level of approval.
- B. If negative votes with comments are received by the deadline date on the ballot, the vote shall be held in abeyance until the comments of the negative voter(s) are transmitted and the Board members have had the opportunity to change their vote.
- C. Staff shall send the comments of negative voters to all Board members within two working days following the deadline date on the ballot. Board members shall have 14 days from the deadline date on the ballot in which to change their votes.

2.200.007.4 For letter ballots in which Board members vote to elect a candidate or candidates for a specific office or offices, the following rule shall apply:

- A. Candidates shall be listed preferably in ranked order as selected by the committee responsible for nominating candidates. In the event that candidates have not been ranked, then candidates shall be listed alphabetically and so identified.
- B. In order for an individual to be elected by letter ballot, a majority of the total voting membership and at least 2/3 of those voting must vote for a candidate, unless other Rules of the Board require a higher level of approval.
- C. In the event of a tie vote, or if no individual meets the above requirement and there are more than two candidates, another vote shall immediately be taken having only the two candidates receiving the largest number of votes.

2.200.007.5 The President shall set a reasonable period for voting to occur, but in no case shall it be less than 14 days. This period of time excludes the time that may be needed for transmitting comments of negative voters, etc. as stated in 2.200.007.3 above.

...

ATTACHMENT D - That ROB Section 2.105.002.2 Approval of MOPs be revised as follows:

2.105.002 Manual of Procedures and Reference Manual (07-01-31-25/10-03-04-05/ 20-02-05-14)

Each standing body is required to keep and annually review a Manual of Procedures and Reference Manual for its members and the conduct of its operations. The following definitions are approved.

2.105.002.1 Manual of Procedures. A Manual of Procedures (MOP) describes mandatory operational rules and interpretations of policy that a standing body must operate under to achieve their assigned responsibilities. It is designed to complement the rules by providing methods and procedures under which to operate. It is the responsibility of the approving body to determine what requirements should be in a MOP and which can be included in a Reference Manual.

2.105.002.2 Approval of MOPs. MOPs that pertain directly to the Board of Directors (e.g., Manual of Procedures for Officers and Directors) shall be maintained by the Society Rules Committee and submitted to the Board of Directors for approval. ~~They are to be included in the Rules of the Board.~~ For councils and standing committees reporting directly to the Board of Directors, Membership or to the Executive Committee, MOPs are maintained by that body and approved by the Society Rules Committee on behalf of the Board of Directors. SRC shall keep these MOPs as part of its own procedures. MOPs for other standing committees (and any other body required to have a MOP) shall be approved by the body to which they report. The approval body shall keep the official copies of the MOP.

2.105.002.3 Reference Manual. A reference manual describes the detailed procedures under which a committee or council operates. Reference manuals are under the sole control of the body to which they apply and are intended to record standard operating procedures and other forms on institutional memory.

ATTACHMENT E - That ROB Volume 4 be removed from the ROB and all items be relocated or deleted as identified below:



~~VOLUME 4~~

~~OPERATION AND ADMINISTRATION~~

~~(ROBs reflect Board principal motions as of July 2021)~~

VOLUME 4
OPERATION AND ADMINISTRATION

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4.100.003	RESEARCH
4.100.004	(Hold for Future Use)
4.100.005	APPOINTMENT OF SPECIAL COMMITTEES
4.100.006	COMMITTEES AND COUNCILS
4.100.007	MEETING DATES AND LOCATIONS
4.100.008	COOPERATION WITH OTHER GROUPS
4.100.009	CO-SPONSORSHIP OF STANDARDS
4.100.010	EDUCATIONAL PROGRAMS/COURSES
4.100.011	MEMBERS/MEMBERSHIP
4.100.012	STRATEGIC PLAN
4.100.013	MEMORANDA OF UNDERSTANDING BETWEEN ASHRAE AND OTHER ORGANIZATIONS
4.100.014	CERTIFICATION
4.100.015	BOARD OF DIRECTORS
4.100.015.1	Resolution on High Impact Governance
4.100.015.2	Resolution on Additional Licensure Requirements
4.100.015.3	Resolution on Qualifications-Based Selection of Design Professionals
4.100.016	SPECIAL PROGRAMS
4.100.017	STAFF
4.200	INTERPRETATIONS

4.100 SUNSET RULES

4.100.001 General

A. Legal Counsel

1. The firm of McGuireWoods is retained as ASHRAE legal counsel for fiscal year 2021-2022. (21-07-01-01/18-06-27-01/17-06-28-01/16-06-29-01/15-07-01-01)

B. Certified Public Accountant

1. That Jones & Kolb be approved as the ASHRAE Certified Public Accountant for fiscal year 2021-2022. (21-07-01-01/18-06-27-01/17-06-28-01/16/06/29-01/15-07-01-01)

C. Bank Resolutions

1. That the appropriate and required bank resolutions for institutions in which ASHRAE funds are deposited as executed by officers for fiscal year 2021-2022 be approved. (21-07-01-01/18-06-027-01/17-06-28-01/16-06-29-01/15-07-01-01)

D. Investment Advisor

1. That Oakbridge Partners, Ltd. be approved as the ASHRAE investment advisor for fiscal year 2021-2022. (21-07-01-01)

4.100.002 Budgets

A. General Fund Budget

1. The 2021-22 draft budget for the General Fund, inclusive of council budgets, showing a total surplus of \$101,100 be approved. (21-06-24-02/06-28-01/14-06-29-01/17-06-25-06/18-06-24-03)

B. Research Fund Budget

1. The 2021-22 draft budget for the Research Fund showing total revenues of (\$3,684,600) and expenses of (\$3,684,600) be approved. (21-06-24-04/18-06-24/04/17-06-25-07/16-06-26-03/15-06-28-02/14-06-29-02)

C. Capital Assets Budget

1. The discretionary capital expenditure budget of \$200,000 for fiscal year 2021-22 be approved. (21-06-24-05/17-06-26-05/16-06-26-04/15-06-28-03/12-06-24-08/13-01-27-03/13-06-23-03/14-06-29-03)

4.100.003 Research

4.100.004 (Hold for Future Use)

4.100.005 Appointment of Special Committees

4.100.006 Councils and Committees

A. A volunteer-driven ASHRAE Sustainable Technology in Action program is established beginning in the 2008-09 Society year. Funding will be provided by ASHRAE up to \$20,000 per Winter or Annual Meeting. (08-06-25-10D)

4.100.007 AHR Meeting Dates and Locations

A. Locations by year of future AHR Expositions are approved as follows: (15-05-31/11-02-02-01)

2022	Las Vegas	January 29—February 2
2023	Atlanta	February 4—8
2024	Chicago	January 20-24

Commented [JC1]: These items are in the minutes of each Annual Meeting.

Commented [JC2]:
According to Lizzy Seymour, Yes, this is the Sustainability Project that is associated with the Winter and Annual Conferences. Basically, Society would give or reimburse up to \$20,000 toward a program or project organized by the local host committee of the Winter and Annual Conferences. According to Lizzy, this program was always optional and was suspended in 19-20 and hasn't been restarted.) (This is not a properly worded ROB but a financial decision that apparently can be made on a yearly basis as required. There isn't any place in the three volumes that it seems to fit)

Add to BOD MOP as a procedure.

Commented [JC3]: On ASHRAE Website with conference information

~~4.100.008 — Cooperation with Other Groups~~

~~A. ASHRAE shall participate in the HVACR Workforce Development Foundation. (10-01-27-07)~~

~~B. The Joint ASHRAE-CIBSE Building Energy Labeling Agreement is approved. (12-10-26-04)~~

~~C. Chartered Institute of Building Services Engineers (CIBSE) (13-01-30-04)~~

~~4.100.009 — Co-sponsorship of Standards~~

~~A. The Illuminating Engineering Society (IES) is co-sponsor of the proposed standard project titled, *Commissioning Process for Buildings and Systems*, with ASHRAE as the lead organization. (10-06-30-25)~~

~~B. The National Electrical Manufacturers Association (NEMA) is co-sponsor of the proposed new standard project titled, *Facility Smart Grid Information Model*. (10-06-30-26)~~

~~C. Illuminating Engineering Society (IES) is co-sponsor of ANSI/ASHRAE Standard 90.2-2010, *Energy Efficient Design of Low-Rise Residential Buildings*, with ASHRAE as the lead organization. (10-10-23-01)~~

~~D. ASHRAE is co-sponsor BSR/SMACNA 021-201x, *HVAC Total System Air Leakage Manual*, with SMACNA being the lead organization. (11-02-02-13)~~

~~4.100.010 — Educational Programs/Courses~~

~~4.100.011 — Members/Membership~~

~~4.100.012 — Strategic Plan~~

~~A. ASHRAE uses a strategic planning process to bring enhanced focus to its activities. Plans are developed by the ASHRAE Planning Committee in collaboration with membership and the Board of Directors. The life of strategic plans is typically five years or less. (19-11-16-22)~~

~~4.100.13 — Memoranda of Understanding~~

~~A. Memoranda of Understanding between ASHRAE and the following have been established:~~

- ~~1. — Advanced Energy Design Guides (AIA, ASHRAE, IES, USGBC)~~
- ~~2. — AICARR-ASHRAE Strategic Partnership Agreement (2018)~~
- ~~3. — Air Conditioning & Refrigeration Institute (AHRI)~~
- ~~4. — Air Movement and Control Association (AMCA) (2020)~~
- ~~5. — American Chemistry Council (ACC) (2019)~~
- ~~6. — American Institute of Architects (AIA) (2019)~~
- ~~7. — American National Standards Institute (ANSI)~~
- ~~8. — American Society of Health Care Engineering (ASHE) July 2020~~
- ~~9. — Association for Facilities Engineering (AFE)~~
- ~~10. — APPA: Leadership in Educational Facilities (July 2019)~~
- ~~11. — ASPE—American Society of Plumbing Engineers~~
- ~~12. — ATECYR-ASHRAE Memorandum of Understanding~~
- ~~13. — ASHRAE/AIRAH Joint Resolution on Climate Change~~
- ~~14. — Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH) (2021)~~
- ~~15. — Building & Construction Authority of Singapore (BCA)~~
- ~~16. — Building Owners and Managers Association (BOMA)~~

Commented [JC4]: This should be deleted as its references () meaning that it resides in BOD minutes and can be easily located by Staff. In reviewing the numbers, a majority of the motions are very old. Example, the first item A. was voted on January 27, 2010 and is motion #7 in the BOD Minutes from that date.

Commented [JC5]: Ken – Recommend removing the following from ROB Volume 4 and revise 2.101.008 Strategic plan.

2.101.008.001 ASHRAE's long range plan and strategic plan activities shall be performed by an ASHRAE planning committee of the Board of Directors on a continuous basis. (97-01-29-12/09-06-21-12C)

2.101.008.002 ASHRAE's strategic planning process brings enhanced focus to its activities. Plans developed by the ASHRAE Planning Committee are in collaboration with membership and the Board of Directors.

2.101.008.003 The life of strategic plans is typically five years or less. (19-11-16-22)

Background:

The added information only resides in volume 4 but is an integral part of the strategic planning process and so belongs with the basic information for strategic plan development.

Commented [JC6]: The most up to date listing is also on the ASHRAE Website.

17. ~~Canada Green Building Council (CaGBC)~~
18. ~~Chartered Institute of Building Services (CIBSE) Strategic Partnership Agreement (2020)~~
19. ~~CIBSE/REHVA/ASHRAE Strategic Partnering Agreement~~
20. ~~China-United States HVACR Industry~~
21. ~~Chinese Association of Refrigeration (CAR)~~
22. ~~Clinton Climate Initiative of the William J. Clinton Foundation (CCI) (WJCF)~~
23. ~~Council of American Mechanical and Electrical Engineers, (CAMEE) (2013)~~
24. ~~Department of Homeland Security (DHS) Science and Technology Directorate (S&T)~~
25. ~~DKV (Deutscher Kälte- und Klimatechnischer Verein) (July 2020)~~
26. ~~EPRI (Electric Power Research Institute) (2019)~~
27. ~~Facility Guidelines Institute (FGI)~~
28. ~~Federation of European Heating, Ventilation and Air Conditioning Associations (REHVA) (2021)~~
29. ~~Global Cold Chain Alliance (GCCA)~~
30. ~~Green Building Council Brasil~~
31. ~~Green Building Initiative (GBI)~~
32. ~~ISHRAE (2019)~~
33. ~~Institute of Refrigeration (IOR)~~
34. ~~Indoor Environment Quality Global Alliance (IEQ-GA)~~
35. ~~International Association of Plumbing and Mechanical Officials, Inc. (IAPMO)~~
36. ~~International Code Council (ICC)~~
37. ~~International District Energy Association (IDEA) (2019)~~
38. ~~International Facility Management Association (IFMA) (2019)~~
39. ~~International Institute of Ammonia Refrigeration (IIR)~~
40. ~~International Institute of Refrigeration (IIR)~~
41. ~~International Ultraviolet Association (IUVA) (2021)~~
42. ~~Japan Society of Refrigerating and Air Conditioning Engineers (JSRAE) (2019)~~
43. ~~Kuwait Foundation for the Advancement of Sciences (KFAS) (2020)~~
44. ~~Kuwait University, College of Engineering and Petroleum~~
45. ~~Mexico Green Building Council (Mexico-GBC)~~
46. ~~National Air Filtration Association (NAFA) (2021)~~
47. ~~National Association of State Energy Officials, (NASEO) (updated 2020)~~
48. ~~National Environmental Balancing Bureau (NEBB) (2019)~~
49. ~~National Institute of Standards and Technology (U.S. Department of Commerce) (NIST) (2019)~~
50. ~~National Society of Professional Engineers (NSPE)~~
51. ~~New Buildings Institute (NBI) (2019)~~
52. ~~NSF International~~
53. ~~NYSERDA (New York State Energy Research & Development Authority) July 202~~
54. ~~Pakistan HVACR Society (2019)~~
55. ~~Smart Cities Council (2019)~~
56. ~~Society of Air-conditioning and Refrigerating Engineers of Korea (SAREK) (July 2019)~~
57. ~~Society of Heating, Air Conditioning and Sanitary Engineers of Japan (SHASE)~~
58. ~~The Serbian Society for Heating, Refrigeration and Air Conditioning (KGH), FTN, and UNS-ASHRAE-SB~~
59. ~~United Nations Environment Programme (UNEP) (2019)~~
60. ~~U.S. Army Corps of Engineers (USACE)~~
61. ~~United States Department of Energy (DOE) (2019)~~
62. ~~U.S. Green Building Council (USGBC)~~
63. ~~United States General Services Administration (GSA)~~
64. ~~VDI-Gesellschaft Bauen und Gebäudetechnik (VDI-GBG)~~
65. ~~Vietnam Society of Refrigeration & Air Conditioning Engineers (VISRAE) — 2019~~

4.100.014 — Certification

4.100.015 — Board of Directors

4.100.015.1 Resolution on High Impact Governance (08-06-22-04)

A. *Whereas*, ASHRAE's long-term effectiveness and growth in a changing, challenging environment depend on the high-impact leadership of a Board that continuously answers three critical questions in a full and timely fashion: Where should ASHRAE be headed, and what should it become, over the long run? What should ASHRAE be now and in the near term? And how is ASHRAE performing as a nonprofit corporation, both financially and programmatically?

B. *Whereas*, the ASHRAE Board needs to transition itself from a body immersed in technical and operational detail to a body that focuses on governance and high-level, strategic decisions;

C. *Be it resolved that:*

The ASHRAE Board of Directors affirm its commitment to high-impact governance and declare its intention to strengthen the Board's governing role and processes by making significant and timely changes to the Board committee structure and the work of the Board;

4.100.015.2 Resolution on Additional Licensure Requirements (08-06-22-11/12-12-14-03)

A. *Whereas*, in 2006, the National Council of Examiners for Engineering and Surveying (NCEES) approved language in its model law requiring an additional 30 credit hours — roughly the equivalent of a master's degree — for obtaining licensure as a Professional Engineer (PE), beginning in 2015;

B. *Whereas*, in 2008, NCEES extended its timeline for implementation of that requirement to 2020;

C. *Whereas*, initiatives related to these proposed licensure revisions are alternatively known as "bachelor's plus-30" (BS+30) or "master's-or-equivalent" (MOE);

D. *Whereas*, the typical scope of an ABET-accredited bachelor's degree has been shown time and again to accommodate technical breadth and flexibility and the intellectual skills necessary for engineering graduates to fulfill requirements necessary for PE licensure;

E. *Whereas*, the current system of examinations and supervision in practice are workable, effective, and adaptable, resulting in highly competent PEs;

F. *Whereas*, states license engineers to protect the health, safety, and welfare of the general public, but there is no concrete evidence to support the contention that additional education requirements demonstrate significant improvement in improving that protection;

G. *Whereas*, committing an additional year to obtain an extra 30 credits would be a significant deterrent for many interested and capable students who might otherwise pursue engineering degrees and careers;

H. *Whereas*, additional education requirements would likely result in a reduced supply of licensed engineers able to practice in a state, a lessening of that state's technological competitiveness, and an increase in costs for engineering services;

I. *Whereas*, technological change is continuous and, as such, professionalism and continuing education throughout an engineering career are imperatives;

J. *Whereas*, ASHRAE will continue to develop educational programs that assure its members remain at the forefront of engineering practice and technologies;

K. *Resolved*, the ASHRAE Board of Directors opposes efforts to increase educational requirements for licensure as a Professional Engineer and encourages states and licensing boards to reject such proposals for the aforementioned reasons;

4.100.015.3 Resolution on Qualifications-Based Selection of Design Professionals (12-06-24-09)

A. *Whereas*, ASHRAE is a volunteer-led building technology society that is driven by technical excellence in research, standards writing, publishing and continuing education serving the HVAC & R industry;

B. *Whereas*, ASHRAE recognizes the economic pressures that are inevitably exerted on technical excellence through a bidding process that uses low price as its sole criteria in the selection of design professionals;

~~C. Whereas, in many cases, the pursuit of low price precludes the design professional from including into the bid the resources that allow for the proper selection of building systems based upon energy efficiency, indoor air quality and sustainability, the hallmarks of technical excellence;~~

~~D. Whereas, it is in the public's best interest to have the design professional make decisions that preserve and protect our environment for future generations, which is possible only through designs that implement energy efficiency, indoor air quality and sustainability; and~~

~~E. Whereas, true technical excellence invariably produces a long-term, cost effective and sustainable solution, thus preserving our environment for future generations; therefore, be it~~

~~F. Resolved, that all design professionals required for the design and construction of the built environment be selected through negotiation based upon the qualifications of the design professional; and~~

~~G. Resolved, that qualifications considered during the selection process include experience, expertise and creativity, making it more likely that technical excellence can be achieved.~~

~~4.100.016 Special Programs~~

~~A. The ASHRAE Board of Directors approve changing the name of the "ASHRAE Foundation Learning Center" to the "Carolyn and Damon Gowan Learning Center." (17-06-28-04)~~

~~4.100.017 Staff~~

~~4.200 INTERPRETATIONS~~

~~A. The Board of Directors implements a policy to follow the United States Department of State list of countries, if an issue arises regarding the sovereignty of a geographic area. (14-01-22-06/14-07-02-30)~~

~~* * * * *~~

Commented [JC7]: These items should be added to the BOD MOP.

Commented [JC8]: This should be deleted as its references () mean that it resides on BOD minutes

Commented [JC9]: Ken - Recommend '4.200 Interpretations' be removed from ROB volume 4 and add a new section 1.201.402 to volume 1.

Add:
1.201.402 Policy on Country Geographic Area

ASHRAE follows the United States Department of State list of countries when an issue arises regarding the sovereignty of a geographic area. (14-01-22-06/14-07-02-30)

Background: This policy currently only resides in Volume 4 of the ROB. Since it is an established policy of the Society, it belongs in the policy section of Volume 1 of the ROB for consistency.

ATTACHMENT F - Society Rules Committee recommends to the BOD that new ROB Section 2.200.010 be added to 2.200 BOARD OF DIRECTORS to include who the BOD elects

2.200.010 The Board of Directors elects' the following:

ASHRAE Hall of Fame	2 or more negative votes defeats
Honorary Member	2 or more negative votes defeats
F. Paul Anderson Award	2 or more negative votes defeats
Pioneers in the Industry	2 or more negative votes defeats
Fellow	4 or more negative votes defeats
Louise and Bill Holladay Distinguished Fellow Award	4 or more negative votes defeats
Andrew T. Boggs Service Award	4 or more negative votes defeats
ASHRAE Award for Distinguished Public Service	4 or more negative votes defeats

2.200.010.2 Society level awards as delineated in ROB 2.411.003.3 and 2.411.003.4.

2.200.010.3 Nominations submitted to the Board by a three-person BOD subcommittee appointed by the President.

2.200.010.3.1 Nominating committee, eight members and eight alternates (SBL 7.6)

2.200.010.3.2 Technology, Publishing and Education Councils

2.200.010.3.3 Standards Committee (SBL 7.9)

2.200.010.3.4 Research Administration Committee (SBL 7.7)

2.200.010.3.5 Technical Activities Committee (SBL 7.8)

2.200.010.3.6 Handbook Committee

2.200.010.4 Scholarship Trustees

2.200.010.5 ASHRAE Foundation Trustees

2.200.010.6 Other recipients of Society-level awards



PROPOSED
ASHRAE SIMPLIFIED
RULES OF ORDER
& MEETING
FUNDAMENTALS

Updated by the Society Rules Committee: February 1, 2022
Approved by the ASHRAE BOD: TBD

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Preface

The purpose of Rules of Order is to facilitate the conduct of the business of the group and to ensure an equal opportunity for all group members to contribute and participate in conducting their business.

These Rules of Order will generally follow Roberts Rules of Order but are intentionally modified for the purpose and use in ASHRAE meetings.

Meeting Fundamentals

The conduct of being the chair of a group of people and leading the meetings thereof within ASHRAE is a skill to be learned and which results in more efficient use of staff and volunteer time.

These meeting fundamentals describe common operations used in ASHRAE meetings.

Principles of Parliamentary Procedure

1. Parliamentary procedure makes it easier for people to work together effectively and helps groups accomplish their purposes. Rules of procedure assist in the conduct of a meeting, not inhibit it.
2. Before a group can conduct its business, it requires a *quorum*. The By-laws of ASHRAE, the Rules of the Board, or a Manual of Procedures of a group specify the number of members that constitute a quorum if different than a simple majority.
3. A meeting can deal with only one matter at a time. Once a motion is before a meeting, it must be adopted or rejected by a vote, or the meeting must dispose of the question in some other way before any other business can be introduced. The various kinds of motions are assigned an order of precedence ([see Table 1](#)).
4. All members have equal rights, privileges, and obligations. One of the chairperson's main responsibilities is to use the authority of the chair to ensure that all people attending a meeting are treated equally—for example, not to permit a vocal few to dominate the debates.
5. A simple majority vote decides an issue unless a higher number is required on major issues outlined in Society Bylaws or Rules of the Board. In any group, each member agrees to be governed by the vote of the majority. Parliamentary rules enable a meeting to determine the will of the majority of those attending a meeting.
6. The rights of the minority must be always protected. Although the ultimate decision rests with a majority, all members have basic rights such as the right to be heard and the right to oppose. The rights of all members—majority and minority—should be the concern of every member, as a person may be in a majority on one question, but in minority the on the next.
7. Every matter presented for decision should be discussed fully. The right of every member to speak on any issue is as important as each member's right to vote.
8. Every member has the right to understand the meaning of any question presented to a meeting, and to know what effect a decision will have. A member always has the right to request information on any motion they do not thoroughly understand. Moreover, all meetings must be characterized by fairness and by good faith. Parliamentary strategy is the art of using procedure legitimately to support or defeat a proposal.
9. There is no need for a motion to receive a committee or task force report. The adoption of the agenda has guaranteed that the report will be heard. The chairperson moves acceptance, and a seconder is unnecessary because the motion is being made on behalf of a committee.

Roll Call Vote

A *roll call vote* places on the record (minutes) how each member votes. A roll call vote would only be used if it were important that each person voting be identified in the minutes of the meeting. It has the opposite effect to a *ballot vote*, which keeps each vote secret.

Roll call votes should not be used in a mass meeting or in any group whose members are not responsible to a constituency.

Challenging a Ruling of the Chair

Any ruling of the chair can be challenged, but such appeals must be made immediately after the ruling. If debate has progressed beyond the announcement of a ruling, a challenge is not in order. ASHRAE does not allow debate on such challenges.

Voting Rights of the Chair

If the presiding officer is a member of the group concerned, they have the same voting rights as any other member. The chair protects impartiality by exercising voting rights only when their vote would affect the outcome. In such cases the chair can either vote (CV) and thereby change the result or can abstain. Normal ASHRAE procedure is for the minutes to reflect that the chair did not vote (CNV). If the chair abstains, they announce the result of the vote with no mention of their own vote.

Executive Session

Discussion of an issue of sensitive, proprietary, or personal nature. Attendance is restricted to members of the body and those invited by the chair. Executive session may be declared by the chair or by a motion approved by a majority vote.

How Motions are Classified

The order of precedence of motions. **Once a motion is before a meeting, it must be adopted or rejected by a vote, or the meeting must dispose of the question in some other way before any other business can be introduced.** If two motions, A and B, are related in such a way that motion B can be made while motion A is pending, motion B *takes precedence over* motion A and motion A *yields* to motion B. The order of precedence (in descending order) is presented in Table 1.

Motions are classified into five (5) groups:

1. main motions
2. subsidiary motions (Secondary Motions)
3. privileged motions (Secondary Motions)
4. incidental motions (Secondary Motions)
5. motions that bring a question again before a meeting

Motions in the second, third and fourth classes (subsidiary, privileged and incidental motions) are *secondary* motions and are in order when a main motion is being debated. They assist a meeting to deal with the main motion and take precedence over the main motion.

When a motion is on the floor, a motion of higher precedence may be proposed, but no motion of lower precedence is in order. At any given time, there can be pending only one motion of any one rank and other motions proposed during consideration of a motion can be accepted by the chair *only* if they are of higher precedence

A main motion can be made only when no other motion is pending. However, a meeting can deal with a main motion in several ways other than just passing or defeating it. These other ways are the purpose of the various secondary motions listed above.

Certain secondary motions also take precedence over others (table 1), so it is possible for more than one secondary motion to be pending at any one time (together with the main motion). In such a case, the motion most recently accepted by the chair is the immediately pending question - it takes precedence over all the others.

A secondary motion takes precedence over a main motion; a main motion takes precedence over nothing, yielding to all secondary motions. When a secondary motion is placed before a meeting, it becomes the immediately pending question; the main motion remains pending while the secondary motion is dealt with.

The main motion, the subsidiary motions, and the privileged motions fall into a definite *order*

of precedence, which gives a particular rank to each. The main motion, which does not take precedence over anything—ranks lowest. Each of the other motions has its proper position in the rank order, taking precedence over the motions that rank below and yielding to those that rank above it.

In voting, the meeting proceeds with the various motions in inverse order—the last one proposed, being of highest precedence, is the first one to be decided.

Table 1. Order of Precedence of Motions

Quick Reference					
	Must Be Seconded	Open for Discussion	Can be Amended	Vote Count Required to Pass	May Be Reconsidered or Rescinded
Adjourn (End meeting)	X			Majority	
Recess	X		X	Majority	
Table	X			Majority	
Close Discussion	X			2/3 rds	X
Limit Debate	X		X	2/3 rds	X
Postpone to a later time (##)	X	X	X	Majority	X
Refer to Committee	X	X +	X	Majority	X
Kill a Motion	X			Majority	X
Amend Motion (* #)	X	X		Majority	X
Postpone Indefinitely (**)	X	X	X	Majority	X
Main Motion	X	X	X	Majority	X

The rules are in descending order of importance. A rule higher in the table takes precedence over one lower in the table. Implication is that everything takes precedence over the main motion on the floor.

Notes:

* An amendment to an amendment is not itself amendable.

A motion to amend the agenda requires a two-thirds majority.

** Can be reconsidered only if the motion is passed.

Can be reconsidered if the group to which the matter has been referred has not started

work on the matter.

+ Only as to propriety or advisability of postponing and of postponing to a certain time.

The Main Motion

A main motion brings business before a meeting. Because a meeting can consider only one subject at a time, a main motion can be made only when no other motion is pending.

A main motion must not interrupt another speaker, requires a seconder, is debatable, is lowest in rank or precedence, can be amended, cannot be applied to any other motion, may be reconsidered, and requires a majority vote.

When a main motion has been stated by one member, seconded by another member, and repeated for the meeting by the chair, the meeting cannot consider any other business until that motion has been disposed of, or until some other motion of higher precedence has been proposed, seconded, and accepted by the chair.

Unless the main motion is very short and simple, the mover should hand it in writing to the secretary.

When a motion has been made by a member and seconded by another, it becomes the property of the meeting. The mover and seconder cannot withdraw the motion unless the meeting agrees.

Usually, the chair would ask if the meeting objects to the motion's being withdrawn. If no one objects, the chair will announce: "The motion is withdrawn."

Subsidiary Motions

Subsidiary motions assist a meeting in treating or disposing of a main motion (and sometimes other motions). **Each of the motions takes precedence over the main motion and any or all the motions listed before it.**

The seven subsidiary motions in ascending order of rank (see Table 1) are:

1. postpone indefinitely
2. amend
3. refer
4. postpone to a certain time

5. limit or extend limits of debate
6. previous question
7. table

Postpone Indefinitely

Despite its name, **this motion is not one to postpone, but one to suppress or kill a pending main motion.**

If an embarrassing main motion is brought before a meeting, a member can propose to dispose of the question (without bringing it to a direct vote) by moving to postpone indefinitely. Such a motion can be made at any time except when a speaker has the floor. If passed, the motion kills the matter under consideration.

It requires a seconder, may be debated (including debate on the main motion), cannot be amended, can be reconsidered only if the motion is passed, and requires a majority vote. (See also “Postpone to a Certain Time”.)

Amend

An *amendment* is a motion to change, to add words to, or to omit words from, an original motion. The change is usually to clarify or improve the wording of the original motion and must, of course, be germane to that motion.

An amendment cannot interrupt another speaker, must be seconded, is debatable if the motion to be amended is debatable, may itself be amended by an *amendment to the amendment*, can be reconsidered, and requires a majority vote, even if the motion to be amended requires a two-thirds vote to be adopted.

The chair should allow full discussion of the amendment (being careful to restrict debate to the amendment, not the original motion) and should then have a vote taken on the amendment only, making sure the members know they are voting on the amendment, but not on the original motion.

If the amendment is defeated, another amendment may be proposed, or discussion will proceed on the original motion.

If the amendment carries, the meeting does not necessarily vote immediately on the “motion as amended.” Because the discussion of the principle of the original motion was not permitted during debate on the amendment, there may be members who want to speak now on the issue raised in the original motion.

Other amendments may also be proposed, provided that they do not alter or nullify the amendments already passed. Finally, the meeting will vote on the “motion as amended” or, if all amendments are defeated, on the original motion.

An amendment to an amendment is a motion to change, to add words to, or omit words from, the first amendment. The rules for an amendment (above) apply here, except that the amendment to an amendment is not itself amendable and that it takes precedence over the first amendment.

Debate proceeds and a vote is taken on the amendment to the amendment, then on the first amendment, and finally on the original motion (“as amended,” if the amendment has been carried). Only one amendment to an amendment is permissible.

Sometimes a main motion is worded poorly, and several amendments may be presented to improve the wording. In such cases it is sometimes better to have a substitute motion rather than to try to solve the wording problem with amendments.

An individual (or a group of two or three) can be asked to prepare a substitute wording for the original motion. If there is unanimous agreement, the meeting can agree to the withdrawal of the original motion (together with any amendments passed or pending) and the substitution of the new motion for debate.

Refer

When it is obvious that a meeting does not have enough information to make a wise decision, or when it seems advisable to have a small group work out details that would take too much time in a large meeting, a member may move: “That the question be referred to the ____ committee” (or “to a committee”—not named).

A motion to refer cannot interrupt another speaker, must be seconded, is debatable only as to the propriety or advisability of referral, can be amended, can be reconsidered if the group to which the question has been referred has not begun work on the matter, and requires a majority vote.

If a motion to refer is passed, the committee to which the matter is referred should report on the question at a subsequent meeting. Sometimes the motion to refer will state the time at which a report will be required.

Postpone to a Certain Time

If a meeting prefers to consider a main motion later in the same meeting or at a subsequent

one, it can move to postpone a motion to a certain time, which is specified in the motion to postpone. Such a motion can be moved regardless of how much debate there has been on the motion it proposes to postpone. A motion may be postponed to a specific time or until after some other item of business has been dealt with.

When the time to which a motion has been postponed has arrived, the chairperson should state the postponed motion to the meeting for its consideration immediately. If another item of business is being discussed at that time, the chairperson should present the postponed motion immediately after the other business has been concluded. If the meeting, in postponing the original motion has instructed that it be given priority at the time to which it has been postponed (that is, issued a “special order”), the postponed motion interrupts any item of business on the floor at that time. For this reason, any “special order” requires a two-thirds majority vote.

A motion to postpone to a definite time may not interrupt another speaker, must be seconded, is debatable only as to the propriety or advisability of postponing and of postponing to the time, can be amended, can be reconsidered, and requires a majority vote if the postponement is to a subsequent meeting.

However, if the postponement is to a later time in the same meeting, the effect is to amend the agenda of that meeting, and the motion therefore requires a two-thirds majority vote.

Limit or Extend Limits of Debate

A motion to limit debate changes the normal rules of debate. It could, for example, limit the time of the whole debate (such as, “I move that debate on this motion be limited to 15 minutes”), or it might limit the time taken by each speaker (“I move that debate on this motion be limited to two (2) minutes per speaker”).

A motion to extend debate permits greater participation and time than usual.

A motion to limit or extend the time of debate (on one matter or for the entire meeting) may not interrupt a speaker, must be seconded, is not debatable, can be amended, can be reconsidered, and requires a two-thirds majority vote.

Previous Question (To Vote Immediately)

This is a tactic to close debate on a question. It is usually made at a time when the debate has been long and repetitious. A member rises and says: “I move that the question be now put.”

A motion to put the previous question (that is, to vote immediately on the motion

being debated) cannot interrupt another speaker, must be seconded, is not debatable, and is not amendable, and requires a two-thirds majority vote.

This requirement is important in protecting the democratic process. Without it, a momentary majority of only one vote could deny to the other members all opportunity to discuss any measure the “majority” wanted to adopt or to defeat. Such a motion can be reconsidered, but if the vote was affirmative, it can be reconsidered only before any vote has been taken under it—that is, only before the previous question has been put.

A motion to put the previous question has precedence over all other motions listed in this section except the motion to table (see next subsection). If the motion to put the question passes, the chair immediately proceeds to call a vote on the question that was being debated. This means *that the mover of the motion loses their right to close debate*. If the motion is defeated, debate on the motion before the meeting continues as if there had been no interruption.

The motion to put the previous question is the only proper method of securing an immediate vote. Members who call, “Question!” in an attempt to get the chairperson to call the question immediately should be ruled out of order. The only situation in which members may properly call, “Question!” is in reply to the chairperson when the chair asks the meeting, “Are you ready for the question?”

Table (Lay on the Table)

Sometimes a meeting wants to lay a main motion aside temporarily without setting a time for resuming its consideration but with the provision that the motion can be taken up again whenever the majority so decides. This is accomplished by a motion to table or to lay on the table.

The motion has the effect of delaying action on a main motion. If a subsequent meeting does not lift the question from the table, the effect of the motion to table is to prevent action from being taken on the main motion. Indeed, rather than either pass or defeat a motion, a meeting will sometimes choose to “bury” it by tabling.

No motion or motions can be laid on the table apart from motions which adhere to them, or to which they adhere; and if any one of them is laid on the table, all such motions go to the table together. For example, a main motion may have been made and an amendment proposed to it. The proposed amendment “adheres” to the main motion. If the meeting wants to table either of the motions, it must table both of them. In this example, if the meeting did not like the proposed amendment, but wanted to deal with the main motion, the correct procedure would be not to table, but to defeat the amendment. Debate could then resume on the main motion.

A motion to table may not interrupt another speaker, must be seconded, is not debatable, is not amendable, may not be reconsidered, and requires a majority vote.

Privileged Motions

Unlike either subsidiary or incidental motions, *privileged* motions do not relate to the pending business, but have to do with special matters of immediate and overriding importance that, without debate, should be allowed to interrupt the consideration of anything else.

Privileged motions are listed below in ascending order of rank. Each of the succeeding motions takes precedence over the main motion, any subsidiary motions, and any or all the privileged motions listed before it.

The five (5) privileged motions are:

1. orders of the day
2. question (point) of privilege
3. recess
4. adjourn
5. fix time to which to adjourn.

The five (5) privileged motions fit into an order of precedence. All of them take precedence over motions of any other class (except when the immediately pending question may be a motion to amend or a motion to put the previous question).

Orders of the Day

The *orders of the day* means the agenda or the order of business. If the order of business is not being followed, or if consideration of a question has been set for the present time and is therefore now in order, but the matter is not being taken up, a member may call for the orders of the day, and can thereby require the order of business to be followed, unless the meeting decides by a two-thirds vote to set the orders of the day aside.

Such a motion can interrupt another speaker, does not require a seconder, is not debatable, is not amendable, and cannot be reconsidered.

If the chair admits that the order of business has been violated and returns to the correct order, no vote is required. If the chair maintains that the order of business has not been violated, their ruling stands unless a member challenges the ruling. A motion to sustain the

chair is decided by a simple majority vote.

Sometimes the chair will admit that the agenda has been violated but will rule that the debate will continue on the matter before the meeting. In such a case, a vote must be taken and the chair needs a two-thirds majority to sustain the ruling. The effect of such a vote is to set aside the orders of the day, i.e., amend the agenda, a move that requires a two-thirds majority vote. Calls for orders of the day are not in order in a committee of the whole. The orders of the day—that is, the agenda items to be discussed, are either *special orders* or *general orders*.

A *special order* specifies a time for the item, usually by postponement. Any rules interfering with its consideration at the specified time are suspended. The four (4) exceptions are rules relating to:

- (1) adjournment or recess,
- (2) questions of privilege,
- (3) special orders made before this special order was made, and
- (4) a question that has been assigned priority over all other business at a meeting by being made *the* special order for the meeting.

A special order for a particular time therefore interrupts any business that is pending when that time arrives. Because a special order has the effect of suspending any interfering rules, making an item a special order requires a two-thirds vote, except where such action is included in the adoption of the agenda.

A *general order* is any question that has been made an order of the day (placed on the agenda) without being made a special order.

When a time is assigned to a particular subject on an agenda, either at the time the agenda is adopted, or by an agenda amendment later, the subject is made a special order. When the assigned time for taking up the topic arrives, the chairperson should announce that fact, then put to a vote any pending questions without allowing further debate, unless someone immediately moves to lay the question on the table, postpone it or refer it to a committee. Any of those three (3) motions is likewise put to a vote without debate.

Also permissible is a motion to extend the time for considering the pending question. Although an extension of time is sometimes undesirable and may be unfair to the next topic on the agenda, it is sometimes necessary. The motion requires a two-thirds majority to pass (in effect, it amends the agenda), and is put without debate.

As soon as any pending motions have been decided, the meeting proceeds to the topic of the special order.

Question or Point of Privilege

If a situation is affecting the comfort, convenience, integrity, rights or privileges of a meeting or of an individual member (for example, noise, inadequate ventilation, introduction of a confidential subject in the presence of guests, etc.), **a member can *raise a point of privilege*, which permits that person to interrupt pending business to make an urgent statement, request or motion. If a motion is made, it must be seconded. The motion might also concern the reputation of a member, a group of members, the assembly, or the organization as a whole.**

If the matter is not simple enough to be taken care of informally, the chair rules as to whether it is admitted as a question of privilege and whether it requires consideration before the pending business is resumed. A point of privilege may also be used to seek permission of the meeting to present a motion of an urgent nature.

Recess

A member can propose a short intermission in a meeting, even while business is pending, by moving to recess for a specified length of time.

A motion to take a recess may not interrupt another speaker, must be seconded, is not debatable, can be amended (for example, to change the length of the recess), cannot be reconsidered, and requires a majority vote.

Adjourn

A member can propose to close the meeting entirely by moving to adjourn. This motion can be made and the meeting can adjourn even while business is pending, providing that the time for the next meeting is established by a rule of the group or has been set by the meeting. In such a case, unfinished business is carried over to the next meeting.

A motion to adjourn may not interrupt another speaker, must be seconded, is not debatable, is not amendable, cannot be reconsidered, and requires a majority vote.

If the motion to adjourn has been made, but important matters remain for discussion, the chair may request that the motion to adjourn be withdrawn. A motion can be withdrawn only with the consent of the meeting.

The motions to recess and to adjourn have quite different purposes. The motion to recess

suspends the meeting until a later time; the motion to adjourn terminates the meeting. **The motion to adjourn should, however, be followed by a declaration from the chairperson that the meeting is adjourned.**

Fix Time to Which to Adjourn

This is the highest-ranking of all motions. Under certain conditions while business is pending, a meeting—before adjourning or postponing the business—may wish to fix a date, an hour, and sometimes the place, for another meeting or for another meeting before the next regular meeting. A motion *to fix the time to which to adjourn* can be made even while a matter is pending, unless another meeting is already scheduled for the same or the next day.

The usual form is: “I move that the meeting adjourn to Thursday, October 23, at 19:30 at _____”

The motion may not interrupt a speaker, must be seconded, is not debatable, is amendable (for example, to change the time and/or place of the next meeting), can be reconsidered, and requires a majority vote.

Incidental Motions

These motions are incidental to the motions or matters out of which they arise. **Because they arise incidentally out of the immediately pending business, they must be decided immediately, before business can proceed.** Most incidental motions are not debatable.

Because incidental motions must be decided immediately, they do not have an order or precedence. An incidental motion is in order only when it is legitimately incidental to another pending motion or when it is legitimately incidental in some other way to business at hand. It then takes precedence over any other motions that are pending—that is, it must be decided immediately.

The eight (8) most common incidental motions are:

1. point of order
2. suspension of the rules
3. objection to consideration
4. consideration seriatim
5. division of the meeting
6. motions related to methods of voting
7. motions related to nominations

Point of Order

This motion permits a member to draw the chair's attention to what they believe to be an error in procedure or a lack of decorum in debate. The member will rise and say: "I rise to a point of order," or simply "Point of order." The chair should recognize the member, who will then state the point of order. The effect is to require the chair to make an immediate ruling on the question involved. The chair will usually give their reasons for making the ruling. If the ruling is thought to be wrong, the chair can be challenged.

A point of order can interrupt another speaker, does not require a seconder, is not debatable, is not amendable, and cannot be reconsidered.

Suspension of the Rules

Sometimes a meeting wants to take an action but is prevented from doing so by one or more of its rules of procedure. In such cases the meeting may vote (two-thirds majority required) to suspend the rules that are preventing the meeting from taking the action it wants to take.

Such a motion cannot interrupt a speaker, must be seconded, is not debatable, is not amendable, cannot be reconsidered and requires a two-thirds majority.

Please note that only rules of procedure can be suspended. A meeting may not suspend requirements of By-laws. After the meeting has taken the action, it wants to take, the rules that were suspended come into force again automatically.

Objection to the Consideration of a Question

If a member believes that it would be harmful for a meeting even to discuss a main motion, that person can raise an *objection to the consideration of the question*; provided debate on the main motion has not begun or any subsidiary motion has not been stated.

The motion can be made when another member has been assigned the floor, but only if debate has not begun or a subsidiary motion has not been accepted by the chair. A member rises, even if another has been assigned the floor, and without waiting to be recognized, says, "Chair, I object to the consideration of the question (or resolution or motion, etc.)." **The motion does not need a seconder, is not debatable, and is not amendable.**

The chair responds, "The consideration of the question is objected to. Shall the question be considered?"

A two-thirds vote against consideration sustains the member's objection. The two-thirds

vote is required because the decision in effect amends the agenda. The motion can be reconsidered, but only if the objection has been sustained.

Consideration by Paragraph or Seriatim

If a main motion contains several paragraphs or sections that, although not separate questions, could be most efficiently handled by opening the paragraphs or sections to amendment one at a time (before the whole is finally voted on), a member can propose a motion *to consider by paragraph or seriatim*.

Such a motion may not interrupt another speaker, must be seconded, is not debatable, is amendable, cannot be reconsidered, and requires a majority vote.

Division of the Meeting (Standing Vote)

If a member doubts the accuracy of the chair's announcement of the results of a vote by show of hands, that member can demand a division of the meeting— that is, a standing vote.

Such a demand can interrupt the speaker, does not require a seconder, is not debatable, is not amendable, and cannot be reconsidered. No vote is taken; the demand of a single member compels the standing vote.

Motions Related to Methods of Voting

A member can move that a vote be taken by roll call, by ballot or that the standing votes be counted if a division of the meeting appears to be inconclusive and the chair neglects to order a count.

Such motions may not interrupt another speaker, must be seconded, are not debatable, are amendable, can be reconsidered, and require majority votes.

Motions Related to Nominations

If the Bylaws or rules of the group do not prescribe how nominations are to be made and if a meeting has taken no action to do so prior to an election, any member can move while the election is pending to specify one of various methods by which candidates shall be nominated or, if the need arises, to close nominations or to re-open them.

Such motions may not interrupt another speaker, must be seconded, are not debatable, are amendable, can be reconsidered, and require majority votes.

The ASHRAE Nominating Committee has detailed rules on how their voting occurs

internally as it relates to determining official nominees for Society leadership positions. This often include ballot voting procedures whereby the votes cast are confidential.

The ASHRAE By-laws specifies that certain actions of the Board of Directors require a 2/3 majority vote, such as when proposing revisions to the By-laws which are then subject to approval of the membership of the Society.

Requests and Inquiries

- a. *Parliamentary Inquiry* —a request for the chair’s opinion (not a ruling) on a matter of parliamentary procedure as it relates to the business at hand.
- b. *Point of Information* —a question about facts affecting the business at hand, directed to the chair or, through the chair, to a member.
- c. *Request for Permission to Withdraw or Modify a Motion.* Although Robert’s Rules of Order specify that until a motion has been accepted by the chair it is the property of the mover, who can withdraw it or modify it as they choose. A common practice is that once the agenda has been adopted, the items on it become the property of the meeting. A person may not, therefore, withdraw a motion unilaterally; they may do so only with the consent of the meeting, which has adopted an agenda indicating that the motion is to be debated.

Similarly, a person cannot, without the consent of the meeting, change the wording of any motion that has been given ahead of time to those attending the meeting—for example, distributed in printed form in advance, printed on the agenda, a motion of which notice has been given at a previous meeting, etc.

The usual way in which consent of a meeting to withdraw a motion is obtained is for the mover to ask the consent of the meeting to withdraw (or change the wording). If no one objects, the chairperson announces that there being no objections, that the motion is withdrawn or that the modified wording is the motion to be debated.

If anyone objects, the chair can put a motion permitting the member to withdraw (or modify) or any two members may move and second that permission be granted. A majority vote decides the question of modifying a motion—similar to amending the motion. A two-thirds majority is needed for permission to withdraw a motion, as this has the effect of amending the agenda.

- d. *Request to Read Papers.*
- e. *Request to be Excused from a Duty.*

f. *Request for Any Other Privilege.*

The first two types of inquiry are responded to by the chair, or by a member at the direction of the chair; the other requests can be granted only by the meeting.

Motions That Bring a Question Again Before the Assembly

There are four (4) motions that can bring business back to a meeting. Which are:

1. Take from the Table
2. Rescind
3. Reconsider, and
4. Discharge a Committee

The order in which the four (4) motions are listed are no relation to the order of precedence of motions.

Take from the Table

Before a meeting can consider a matter that has been tabled, a member must move: “That the question concerning ‘_____’ be taken from the table.”

Such a motion may not interrupt another speaker, must be seconded, is not debatable, is not amendable, cannot be reconsidered, and requires a majority vote.

If a motion to take from the tables passes, the meeting resumes debate on the original question (or on any amendments to it). If considerable time has elapsed since the matter was tabled, it is often helpful for the first speaker to review the previous debate before proceeding to make any new points.

Rescind

A meeting, like an individual, has a right to change its mind. There are two ways a meeting can do so—rescind or reconsider.

A motion to rescind means a proposal to cancel or annul an earlier decision. A motion to reconsider, if passed, enables a meeting to debate again the earlier motion and eventually vote again on it. However, a motion to rescind, if passed, cancels the earlier motion, and makes it possible for a new motion to be placed before the meeting.

Another form of the same motion—a motion to *amend something previously adopted*—can be proposed to modify only a part of the wording or text previously adopted, or to substitute a different version.

Such motions cannot interrupt another speaker, must be seconded, are debatable, and are amendable.

Because such motions would change action already taken by the meeting, they require:

- **a two-thirds vote**, or
- a majority vote when notice of intent to make the motion has been given at the previous meeting or in the call of the present meeting, or
- a vote of the majority of the entire membership—whichever is the most practical to obtain.

Negative votes on such motions can be reconsidered, but not affirmative ones.

Reconsider

A motion to reconsider enables the majority in a meeting within a limited time and without notice, to bring back for further consideration a motion that has already been put to a vote. The purpose of reconsideration is to permit a meeting to correct a hasty, ill-advised, or erroneous action, or to take into account added information or a changed situation that has developed since the taking of the vote.

If the motion to reconsider is passed, the effect is to cancel the original vote on the motion to be reconsidered and reopen the matter for debate as if the original vote had never occurred. A motion to reconsider has the following unique characteristics:

- a) **It can be made only by a member who voted with the prevailing side**— that is, voted in favor if the motion involved was adopted, or voted contrary if the motion was defeated. This requirement is a protection against a defeated minority's using a motion to reconsider as a dilatory tactic. If a member who cannot move a reconsideration believes there are valid reasons for one, they should try to persuade someone who voted with the prevailing side to make such a motion.
- b) **The motion is subject to time limits.** In a session of one day, a motion to reconsider can be made only on the same day the vote to be reconsidered was taken. In a session of more than one day, reconsideration can be moved only on the same or the next succeeding day after the original vote was taken. These time limitations do not apply to standing or special committees.

c) **The motion can be made and seconded at times when it is not in order for it to come before the assembly for debate or vote.** In such a case it can be taken up later, at a time when it would otherwise be too late to make the motion.

Making a motion to reconsider (as distinguished from *debating* such a motion) takes precedence over any other motion whatever and yields to nothing. Making such a motion is in order at any time, even after the assembly has voted to adjourn, if the member rose and addressed the chair before the chair declared the meeting adjourned. In terms of debate of the motion, a motion to reconsider has only the same rank as that of the motion to be reconsidered.

A motion to reconsider can be made when another person has been assigned the floor, but not after that person has begun to speak. The motion must be seconded, is debatable provided that the motion to be reconsidered is debatable (in which case debate can go into the original question), is not amendable, and cannot be reconsidered.

ASHRAE has not specifically adopted the 2/3 majority vote requirement for motions to reconsider a motion. In regular meetings the motion to reconsider may be made at any time, in fact, it takes precedence over any other motion, but its rank as far as debate is concerned is the same as the motion it seeks to reconsider. In other words, the motion to reconsider may be *made* at any time, but *debate* on it may have to be postponed until later.

Discharge a Committee (From Further Consideration)

If a question has been referred, or a task assigned, to a committee that has not yet made its final report, and if a meeting wants to take the matter out of the committee's hands (either so that the meeting itself can deal with the matter or so that the matter can be dropped), such action can be proposed by means of a motion to discharge the committee from further consideration of a topic or subject.

Such a motion cannot interrupt another speaker, must be seconded, is debatable (including the question that is in the hands of the committee), and is amendable.

Because the motion would change action already taken by the meeting, it requires:

- a **two-thirds vote**, or
- a majority vote when notice of intent to make the motion has been given at the previous meeting or in the call of the present meeting, or
- a vote of the majority of the entire membership—whichever is the most practical to obtain.

A negative vote on this motion can be reconsidered, but not an affirmative one.

Adjournment

In organizations with a regular schedule of meetings a **motion to adjourn is a “privileged” motion that is neither amendable nor debatable. A seconder is required and the motion should be put.**

If it is passed, the chair formally announces that the meeting is adjourned.

Meeting Fundamentals

Preparing for a Meeting

Although a chairperson will use the various rules of order in conducting a meeting, there are things the chair can do prior to the meeting to help ensure that things will go smoothly.

By far the most important thing a chairperson can do to ensure a successful meeting is to do their homework. The chair should become thoroughly familiar with all the business to be dealt with at the meeting, including any reports to be made by committees or task forces, any motions already submitted by members or groups of members, and insofar as is possible, any “new” business likely to be introduced. Such preparation will enable the person to “stay on top of things” while chairing the meeting, and to anticipate most of the questions likely to be asked, information needed, etc.

The chair should also ensure that key people needed by the meeting (for example, the vice chair, secretary, treasurer, sub-committee chairs, etc.) will attend the meeting.

One of the most fundamental ways to ensure a successful meeting is often overlooked because it is so obvious ensuring that the room selected for the meeting is suitable and comfortable. The room should permit a seating arrangement in which no one’s view is blocked. Moreover, careful attention should be paid to such matters as lighting, acoustics and ventilation, for such factors can play major roles in the success or failure of a meeting.

Procedures Used in Meetings

Quorum of Members

Before a meeting of a group can conduct its business, it requires a *quorum*, the minimum number of members who must be present at the meeting before business can be legally or officially transacted. The requirement of a quorum is a protection against unrepresentative action in the name of the group by an unduly small number of people.

The By-laws of ASHRAE, the Rules of the Board, or a Manual of Procedures of a group should specify the number of members that constitute a quorum for that group if different than a simple majority, one (1) member beyond 50% of the total number of members. **In the case of an odd number of members making the quorum, 50% may be a fraction of a whole number, and a majority would be that fraction rounded to**

the next whole number. If extremely bad weather or other extreme conditions might hinder obtaining a quorum then the meeting date and time may need to be changed to ensure a quorum is present.

The requirements for a quorum shall apply to all groups where a roster identifies official membership, including sub-committees. If a group or committee finds itself without a quorum, it can do nothing but rise and report to the regular meeting of the group it reports to. For all groups, committees and task forces, a quorum shall be a majority of the appointed voting members of the body unless governing documents indicate otherwise.

In any meeting of delegates, where applicable, the quorum is a majority of the number of delegates who have been registered as attending, even if some of them have departed unless current rules stipulate otherwise.

In the absence of a quorum, business requiring a vote cannot be transacted and if conducted is null and void, but not the meeting itself. Where ASHRAE Bylaws or other Rules require that a specific meeting be held, the absence of a quorum in no way detracts from the fact that the rules were complied with and the meeting was held, even though it had to adjourn immediately due to the lack of a quorum.

The only actions that can legally be taken in the absence of a quorum are to fix the time in which to adjourn, recess, or take measures to obtain a quorum (for example, contacting members during a recess and asking them to attend). The prohibition against transacting business in the absence of a quorum cannot be waived even by unanimous consent. If an important opportunity would be lost, unless acted upon immediately, the members present at the meeting can—at their own risk—act in the emergency in the hope that their actions will be ratified at a later meeting at which a quorum is present. This should be extremely rare and is discouraged unless a true emergency exists.

Before calling a meeting to order, the chair should be sure a quorum is present. If a quorum cannot be obtained, the chair should call the meeting to order, announce the absence of a quorum and entertain a motion to adjourn or one of the other motions allowed as described above.

If a meeting has a quorum to begin with, but members leave the meeting, the continued presence of a quorum is presumed unless the chair or a member notices that a quorum is no longer present. If the chair notices the absence of a quorum, it is the duty of the chair to declare this fact, at least before taking any vote or starting on a new motion. Any member noticing the apparent absence of a quorum can raise a point of order to that effect at any time so long as they do not interrupt a person who is then speaking. A member must question the presence of a quorum at the time a vote on a motion is to be

taken. A member may not, at some later time, question the validity of an action on the grounds that a quorum was not present after the vote has concluded.

If a meeting has to be adjourned because of a lack of a quorum, either before it conducts any business or part way through the meeting, the group must call for another meeting to complete the business of the meeting. The usual quorum requirements apply to any subsequent meeting unless the Bylaws or other Rules indicate otherwise.

The Bylaws or Rules could stipulate, for example, that if a meeting had to be terminated for lack of a quorum, another meeting will be held x days or weeks later, and that the number of members attending that meeting will constitute a quorum.

If the Bylaws or Rules do not provide for a special procedure, all the usual requirements for calling and holding meetings shall apply.

The Agenda

The *agenda* consists of the items of business to be discussed in a meeting. It is made up of “special” and “general” orders.

Usually, the chair or another designated person, generally a joint effort of the chair and the ASHRAE staff liaison, is charged with the responsibility for preparing the agenda. The person preparing the agenda can seek assistance from others with this task.

The agenda can be amended either before or after it is adopted. Until the meeting adopts the proposed agenda, the agenda is merely a proposal. Motions, requiring simple majorities, can be made to add items to, delete items from, or rearrange the order of items on a proposed agenda. However, it is also acceptable for the chair to ask for input on revisions, or suggest revisions, to the proposed agenda, which may also be approved by consensus, approved by the body unless someone objects. Once the agenda has been adopted, the business items on it are the property of the meeting body, not of the groups or individuals who submitted the agenda items.

Any change to the agenda, once it has been adopted, can only be made by a motion, but any such motions then require a two-thirds or larger majority to pass.

If an individual has submitted a motion for debate at a meeting, but decides, after the agenda has been adopted, not to present the motion, the individual cannot simply withdraw the motion from the agenda; that action requires a two-thirds majority vote, because the effect is to amend the agenda. The individual may choose not to move the motion, but it is the right of any other person attending the meeting to move the motion if they want to do so.

To expedite the progress of the meeting, the chair may announce that the individual would like to withdraw the motion and ask if there is any objection. If no one objects, the chair can go on to the next item of business, because a unanimous lack of objection is, in effect, a unanimous vote to delete the item from the agenda.

Once the agenda has been adopted, each item of business on the agenda will come before the meeting group unless: (1) no one moves a motion, (2) no one objects to withdrawal suggested by the sponsoring individual or group, (3) a motion to delete an item from the agenda is made and passed with a two-thirds or larger majority, or (4) the meeting runs out of time before the item can be discussed.

In summary, the agenda can be changed before or after it has been adopted.

Before adoption of the agenda, motions to amend the agenda require simple majority votes. After adoption, motions to amend the agenda require two-thirds or larger majorities to pass.

Debate on Motions

Business is accomplished in meetings by means of debating *motions*. **The word “motion” refers to a formal proposal by two members of the group (the mover and seconder) on which the meeting group takes certain action.**

Technically, a meeting should not consider any matter unless it has been placed before the meeting in the form of a motion. In practice, however, **it is sometimes advantageous to permit limited discussion of a general topic before a motion is introduced.** A preliminary discussion can sometimes indicate the precise type of action that is most advisable, whereas presentation of a motion first can result in a poorly worded motion, or a proposal for action that, in the light of subsequent discussion, seems inadvisable. This departure from strict parliamentary procedure must be used with caution and the chair must be careful not to let the meeting get out of control.

Normally, a member may speak only once on the same question, except for the mover of the main motion, who has the privilege of “closing” the debate (that is, of speaking last). If an important part of a member’s speech has been misinterpreted by a later speaker, it is ‘in order’ for the member to speak again to clarify the point, but no new material should be introduced. If two or more people want to speak at the same time, the chair should call first upon the one who has not yet spoken and if all have not spoken then they should all speak in the order in which they identified their desire to speak.

If the member who made the motion that is being discussed claims the floor and has already

spoken on the question, then they are entitled to be recognized before other members.

In some cases, the meeting body may want to adopt rules limiting the time a member may speak in any one debate—for example, five (5) minutes. This should be identified by rule or the chair may suggest this course of action unless the body objects to these limits which may then be considered by motion and a vote.

The mover of a motion may not speak against their own motion, although the mover may vote against it. The mover need not speak at all, but when speaking, it must be in favor of the motion. If, during the debate, the mover changes their mind, then they can inform the meeting of this fact by asking the meeting's permission to withdraw the motion.

The mover and seconder cannot withdraw the motion unless the meeting agrees. Usually, the chair would ask if the meeting objects to the motion's being withdrawn. If no one objects, the chair will announce: "The motion is withdrawn."

In voting, the meeting proceeds with the various motions in inverse order - the last one proposed, being of highest precedence, is the first one to be decided.

If the amendment is defeated, another amendment may be proposed, or discussion will proceed on the original motion.

If the amendment carries, the meeting does not necessarily vote immediately on the "motion as amended." Because the discussion of the principle of the original motion was not permitted during debate on the amendment, there may be members who want to speak now on the issue raised in the original motion.

Proper Wording of a Motion

Much time can be wasted at meetings when a motion or resolution is carelessly worded and when background or rationale for the motion gets included in the motion. It is for this reason that a motion proposed at a meeting, unless it is very short and simple, should always be in writing. The requirement of having to write the motion out generally pushes the author to more carefully worded motions.

Sometimes a main motion is worded poorly, and several amendments may be presented to improve the wording. In such cases it is sometimes better to have a substitute motion rather than to try to solve the wording problem with amendments.

Determining Results of a Vote

Most motions are decided by a *majority* vote, more than half the votes actually cast, excluding blanks (a protest vote which is discouraged and extremely rare in any group) or abstentions. For example, if 29 votes are cast, a majority (more than 14½) is 15. If 30 votes are cast, a majority (more than 15) is 16. If 31 votes are cast, a majority (more than 15½) is 16.

Some motions (see Table 1 in ASHRAE Rules of Order) require a *two-thirds majority* as a compromise between the rights of the individual and the rights of the meeting. To pass, such motions require that at least two-thirds of the votes actually cast (excluding blanks and abstentions) are in the affirmative. If 60 votes are cast, for example, a two-thirds vote is 40. If 61 votes are cast, a two-thirds vote is 41. If 62 votes are cast, a two-thirds vote is 42. If 63 votes are cast, a two-thirds vote is 42.

A *plurality* vote is the largest number of votes when three or more choices are possible. Unless the body has adopted special rules to the contrary, a plurality vote does not decide an issue unless it is also a majority vote. In a three-way contest, one candidate might have a larger vote than either of the other two, but unless they receive more than half of the votes cast, they are not declared elected.

Roll Call Vote

A *roll call vote* places on the record how each member votes. It has the opposite effect, therefore, of a *ballot vote*, which keeps each vote secret. Roll call votes should not be used in a mass meeting or in any group whose members are not responsible to a constituency.

If a body is going to use roll call votes, the organization or group should include in its procedures or rules a statement identifying when to call a roll call vote. Generally, in ASHRAE, it is the chair's decision to determine whether a roll call vote is necessary, or to be taken, and is generally reserved for motions of historical significance or which is controversial.

The procedure for taking roll call votes is to call the names of the voting members or delegates alphabetically, and to have each person indicate orally their vote.

When the roll call vote has been concluded, the chair should ask if anyone entered the room after their name was called in which case they should then be permitted to vote. Individuals may also have an opportunity to change their votes at this time. After all additions and changes have been made, the secretary will give to the chairperson the final number of those voting on each side, and the number abstaining. The chairperson will announce the figures and declare the result of the vote.

The name of each member or delegate would then be included in the minutes of the

meeting, together with the vote.

Challenging a Ruling of the Chair

Any ruling of the chair can be challenged, but such appeals must be made immediately after the ruling. If debate has progressed beyond the announcement of a ruling, a challenge is not in order. Although Robert's Rules of Order allow debate under certain circumstances, the practice of ASHRAE is to allow no debate on such challenges.

It should be noted that members have no right to openly criticize a ruling of the chair unless they appeal it.

Voting Rights of the Chair

If the presiding officer is a member of the group concerned, they have the same voting rights as any other member. The chair protects impartiality by exercising voting rights only when their vote would affect the outcome. In such cases the chair can either vote and thereby change the result, or can abstain. If the chair abstains, they announce the result of the vote with no mention of their own vote.

The outcome of any motion requiring a majority vote will be determined by the chair's action in cases in which, without their vote, there is either a tie vote or one more vote in the affirmative than in the negative. Because a majority of affirmative votes is necessary to adopt a motion, a tie vote rejects the motion. If there is a tie without the chair's vote, the chair can vote in the affirmative, thereby creating a majority for the motion. If the chair abstains from voting in such a case, however, the motion is lost (because it did not receive a majority).

If there is one more affirmative vote than negative votes without the chair's vote, the motion is adopted if the chair abstains. If the chair votes in the negative, however, the result is a tie and the motion is therefore lost.

In short, the chairperson can vote either to break or to cause a tie; or, when a two-thirds vote is required, can vote either to cause or to block the attainment of the necessary two-thirds.

The chair cannot vote twice, once as a member, then again in their capacity as presiding officer.

In ASHRAE a chair frequently indicates "Chair not Voting" which is abbreviated as "CNV" which is equivalent to abstaining from voting.

Sample Order of Business

This section details a sample order of business for a regular business meeting and indicates how the chair should handle each item. The order is not intended to be prescriptive; each chairperson should follow an order that is satisfactory to them and to the group involved.

The Order of Business (Agenda)

The chairperson of a meeting should prepare in advance a list of the order of business or agenda for the meeting. A sample order of business follows:

- Call to Order
- Announce a Quorum is Present
- Roll Call
- ASHRAE Code of Ethics
- Review and Approval of the Agenda
- Review & Approval of Minutes
- Update on Action Items
- Treasurers Report (if pertinent)
- Reports (Highest level body, most important, or carry over items from the last meeting should be first)
- Committee Reports (listed)
- Correspondence (listed)
- Unfinished or Old Business (listed)
- New Business (listed)
- Announcements (listed)
- Program(s) (An alternative is to have a guest speaker, if not a member of the body, make their comments before the business meeting begins so that they do not have to sit through the meeting.)
- Other Business
- Adjournment

Call to Order

The chairperson calls the meeting to order with a statement such as: “The meeting will now come to order.” If the president or chair is not present, the meeting may be called to order by the vice president or vice chair, or by any person attending that is willing to accept being the chairperson or be an acting chairperson.

Adoption of the Agenda

In ASHRAE the adopted practice is to **always circulate a copy of the proposed agenda to all members and interested parties of the meeting in advance.** All meetings should begin with the consideration of the agenda. The chairperson will ask if any of the members have additional matters that should be placed on the agenda. After these have been taken care of, the chairperson should call for a motion to adopt the agenda. A member should then move: “That the agenda be adopted.” (Or “adopted as amended.”) A seconder is required. Passage of the motion (requiring a simple majority) restricts the business of the meeting to items listed on the agenda.

Alternately to the formal process indicated above the Chair can note the proposed changes to the agenda and it can be approved by consent, whereby no person objects to the proposed amendments at the beginning of the meeting only.

Many of the less formal groups or committees may not bother with the consideration of the agenda in this way. However, the procedure outlined above protects the membership from the introduction, without prior warning, of new, and perhaps controversial, matters of business. If a meeting does adopt an agenda, it can change that agenda only by a formal motion to do so. A member might move, for example, that an item be added to the agenda or deleted from the agenda or that the order in which the items are to be discussed be changed. Such a motion must be seconded and requires a two-thirds majority vote. (See “Orders of the Day”.)

Minutes

It is the recommended ASHRAE procedure that **a copy of prior meeting minutes, not yet officially approved, be circulated to all members of a body and others interested in the work of the body before the meeting, in which case they need not be read at the meeting.** If not distributed prior to the meeting a member of the body may call for the minutes to be read to the body. When action on the minutes is to be considered, the chairperson asks if there are any errors in or omissions from the minutes in which case

those amendments should be addressed.

In ASHRAE it is preferred to have a formal motion to approve all body meeting minutes. A member should move: “That the minutes of the (*date*) meeting be approved as printed (or circulated).” In less formal meetings it is sufficient for the chairperson, if no one answers their call for errors or omissions, to say, “There being no errors or omissions noted, I declare the minutes of the (*date*) meeting approved as printed (or as per the copies distributed).” Should there be a mistake in the minutes, it is proper for any member to rise and point out the error. The secretary of the body should then make an appropriate correction or addition. The motion will then read: “.....approved as amended.”

Executive Committee Minutes

Sometimes the minutes of a previous executive committee, Executive Director and Officers, meeting are provided for record purposes of the larger body (Board of Directors), and may be read or summarized by the secretary, when applicable. One purpose is to give information to the membership on the disposition of business items that have been handled by the executive body. Occasionally a member will ask for more information regarding the matters disposed of by the executive body, and sometimes the general meeting will want to change the action taken by the executive body. Such cases are usually rare, but they are indications of the necessary subservience of the executive committee to the membership as a whole.

On important matters of business, the executive committee may have been able to arrive at recommendations that can later be considered by the general meeting. The reading or summarizing of the executive committee minutes can therefore prepare the membership for the discussion of important business on the agenda of the general meeting.

The executive committee minutes are not adopted or amended until the next executive meeting (having been read or summarized to the general meeting for information only).

Treasurer (If Pertinent)

The chairperson will call upon the treasurer to present a report on the finances of the society or group. For a regular meeting this would only need to be a simple statement of the receipts and disbursements since the last financial report, any major deviations in expenses and income based on the budget, the balance of money held in the account of the Society or group, and other information of interest to the body.

At the Annual meeting the treasurer should submit a detailed record of the financial business for the year and this report should be audited (that is, checked thoroughly by the appointed

Board appointed Audit Committee (comprised of Board of Director members), to ensure that they present fairly the final financial position of the association and the results of its operations for the year).

Although it is not necessary to have a motion to “adopt” the treasurer’s report at a monthly meeting, it is advisable to adopt the audited annual report. A member of the Audit Committee should move: “That this report be adopted.”

At the annual meeting the treasurer would also present the proposed budget for the upcoming society year which also requires adoption by the Board of Directors.

Correspondence

Before the meeting, the secretary, in consultation with the chairperson, should separate any information and letters of significance received that impacts the operation and duties of the committee, into two groups—those requiring action and then others for information only.

The information and letters that require action by the meeting body should be added to the agenda with background information as applicable. They would be added to New Business if it requires action by the body. Each letter would require a separate motion to dispose of it.

Unfinished Business

Any business that has been postponed from a previous meeting, or that was pending when the last meeting adjourned, is called “old” or “unfinished” business or “business arising from the minutes.” It is usually advisable for the chairperson to remind the meeting of the history of this business before discussion begins (or the chair may call upon someone with special information to do this).

Committee and Official Reports

Before the meeting, the chairperson should check with committee chairs to determine which committees or task forces have reports ready for the meeting and the importance of the material to be presented. All reports must be listed on the agenda.

In establishing the order in which committees should be heard, the chairperson should give priority to those with the most important reports. If none of the reports is of particular importance, any committee report that is pending from the previous meeting should be heard first. Usually, standing committees are given precedence over task forces (a standing committee is one that functions over an extended period of time; a task force or *ad hoc*

committee is set up to deal with a special problem and is discharged when its task is completed). Committee reports should be in written form, so that a copy can be placed in the record files.

There is no need for a motion to receive a committee or task force report. The adoption of the agenda has guaranteed that the report will be heard.

If the report has been duplicated, the committee or task force chairperson should not read the report. The chair of the committee reporting may want to make a few comments, however, before answering questions from the meeting.

After all questions have been answered, the committee or task force chairperson will move any recommendations on behalf of the committee or task force. **Rules of Order indicate that a seconder is unnecessary for such motions because the motion is being made on behalf of a committee.**

Amendments to the recommendations may be proposed by any member at the meeting. After all the recommendations have been dealt with, motions may be received from the floor dealing with the substance of the report or the work of the committee or task force concerned.

Note: A committee or task force report need not be adopted. On rare occasions, a meeting may have occasion to adopt the entire report. An affirmative vote on such a motion has the effect of the meeting's endorsing every word of the report—including the indicated facts and the reasoning—as its own. However, the treasurer's audited annual report should be adopted.

Occasionally it becomes evident that the report of a committee, or one of the recommendations, is not acceptable to a large proportion of the membership of the body present at the meeting. The committee can be directed to review its work in the light of the discussion heard.

New Business

When all unfinished business has been disposed of, the chairperson will say: "New business is now in order." Items not included on the agenda may not be discussed unless the agenda is amended. (The motion to amend the agenda requires a two-thirds majority.)

Announcements

The chairperson should give committee chairs and others an opportunity to make special announcements as well as making any of their own items of interest.

Program

When the association is to hear a special speaker, it may be advisable to have the speaker before the official business (from “Adoption of the Agenda” on) begins. In other cases the program occurs after pending new business has been disposed of. The chair of the meeting may ask a separate program chairperson to take charge at this point.

Adjournment

In organizations with a regular schedule of meetings a motion to adjourn is a “privileged” motion that is neither amendable nor debatable. A seconder is required and the motion should be put. If it is passed, the chair should announce formally that the meeting is adjourned.

ASHRAE Rules of Order – Quick Reference

Guiding Principles:

- Quorum is required before business can be conducted.
- Everyone has the right to participate in discussion if they wish before anyone may speak a second time.
- Everyone has the right to know what is going on at all times. Only urgent matters may interrupt a speaker.
- Only one thing (motion) can be discussed at a time.

A **motion** is the topic under discussion (e.g., “I move that we add a coffee break to this meeting”). After being recognized by the president of the board, any member can introduce a motion when no other motion is on the table. A motion requires a second to be considered. If there is no second, the matter is not considered. Each motion must be disposed of (passed, defeated, tabled, referred to committee, or postponed indefinitely).

How to do things:

You want to bring up a new idea before the group.

After recognition by the president of the board, present your motion. A second is required for the motion to go to the floor for discussion, or consideration.

You want to change some of the wording in a motion under discussion.

After recognition by the president of the board, move to amend by

- adding words,
- striking words or
- striking and inserting words.

You like the idea of a motion being discussed, but you need to reword it beyond simple word changes.

Move to substitute your motion for the original motion. If it is seconded, discussion will continue on both motions and eventually the body will vote on which motion they prefer.

You want more study and/or investigation given to the idea being discussed.

Move to refer to a committee. Try to be specific as to the charge to the committee.

You want more time personally to study the proposal being discussed.

Move to postpone to a definite time or date.

You are tired of the current discussion.

Move to limit debate to a set period of time or to a set number of speakers. Requires a 2/3rds vote.

You have heard enough discussion.

Move to close the debate. Also referred to as calling the question. This cuts off discussion and brings the assembly to a vote on the pending question only. Requires a 2/3rds vote.

You want to postpone a motion until some later time.

Move to table the motion. The motion may be taken from the table after 1 item of business has been conducted. If the motion is not taken from the table by the end of the next meeting, it is dead. To kill a motion at the time it is tabled requires a 2/3rds vote. A majority is required to table a motion without killing it.

You believe the discussion has drifted away from the agenda and want to bring it back.

“Call for orders of the day.”

You want to take a short break.

Move to recess for a set period of time.

You want to end the meeting.

Move to adjourn.

ASHRAE Rules of Order – Quick Reference

You are unsure the president of the board announced the results of a vote correctly.
Without being recognized, call for a "division of the house." A roll call vote will then be taken.

You are confused about a procedure being used and want clarification.
Without recognition, call for "Point of Information" or "Point of Parliamentary Inquiry." The president of the board will ask you to state your question and will attempt to clarify the situation.

You have changed your mind about something that was voted on earlier in the meeting for which you were on the winning side.

Move to reconsider. If the majority agrees, the motion comes back on the floor as though the vote had not occurred.

You want to change an action voted on at an earlier meeting.

Move to rescind. If previous written notice is given, a simple majority is required. If no notice is given, a 2/3^{rds} vote is required.

Executive Session.

Discussion of an issue of sensitive, proprietary or personal in nature.

Unanimous Consent:

If a matter is considered relatively minor or opposition is not expected, a call for unanimous consent may be requested. If the request is made by others, the president of the board will repeat the request and then pause for objections. If none are heard, the motion passes.

- **You may INTERRUPT a speaker for these reasons only:**
 - to get information about business –point of information to get information about rules– parliamentary inquiry
 - if you can't hear, safety reasons, comfort, etc. –question of privilege
 - if you see a breach of the rules –point of order
 - if you disagree with the president of the board's ruling –appeal
 - if you disagree with a call for Unanimous Consent –object

Order of Precedence of Motions					
The rules are in descending order of importance. A rule higher in the table takes precedence over one lower in the table. Implication is that everything takes precedence over the main motion on the floor.					
Rule	Must Be Seconded	Open for Discussion	Can be Amended	Vote Count Required to Pass	May Be Reconsidered or Rescinded
Adjourn (End meeting)	X			Majority	
Recess	X		X	Majority	
Table	X			Majority	
Close Discussion	X			2/3 rds	X
Limit Debate	X		X	2/3 rds	X
Postpone to a later time (##)	X	X	X	Majority	X
Refer to Committee	X	X (+)	X	Majority	X
Kill a Motion	X			Majority	X
Amend Motion (* #)	X	X		Majority	X
Postpone Indefinitely (**)	X	X	X	Majority	X
Main Motion	X	X	X	Majority	X

(#, ##, *, **,+) See full Rules of Order for explanation of symbols

BOD Subcommittee – Board Composition & Leadership Structure

February 2, 2022
Las Vegas, NV



Keep the Board As Is

**Modify the Board as
proposed by the
Streamlining Ad-Hoc**

**Modify the Board by
forming a "hybrid" of
Options 1 and 2**

Proposed Options

BOD Roles & Responsibilities

Financial / Fiscal Oversight

Thinking Strategically as a Board

Setting the Society's strategic direction

Legal and Ethical Oversight

Decentralization of power and/or decision making (empower the councils and committees)

Diverse Perspective

Build relationships with industry partners (other associations, manufacturing, and consulting firms)

Understanding the context (public policy environment, other organizational players, etc.) in which ASHRAE is working

Knowledge of ASHRAE's programs

Providing oversight of councils and select committees

More interaction of the members of the BOD with chapters and members

Equal representation of each council on the Board

Each region should have a representation on the Board

Equal representation based on membership

Each member should have a direct representative on the Board

BOD Roles & Responsibilities Survey



Questions



BOD Subcommittee: Operations Streamlining

Saturday January 29 12:00 to 2:00 PM

Caesars Palace, Palermo (P)

CHARGE: Our approach is that the size of the BOD will not change. The questions we are addressing is how to improve and make more effective the BOD and its governance of ASHRAE.

1) Motions for Board Approval:

I) That the attached agenda template (Item A) be used as the starting document for BOD agendas.

- a. **Background:** President Mick Schwedler has done an admirable job in moving the BOD towards strategic discussions. Attached is a sample agenda that captures this approach. Control size of reports from ASHRAE groups to Strategic issues and required motions or actions by the BOD. Rest of report to be provided in written format. Committee 6-0 cnv

II) Move that ROB 2.303.002.5 RESEARCH PROJECT APPROVAL LIMIT

This council may approve research projects, within the Board-approved research budget, up to a total project cost not to exceed ~~\$500,000~~ ~~\$250,000~~. Within this limit, this council may delegate project approval authority to the Research Administration Committee. Technology Council may ask for BOD review on projects if they deem it necessary.

Background: Discussion involved around the size of the number (up to one million) and how the BOD could provide input on projects that may have controversy or other issues. The line added at the end of the paragraph is to be sure Technology Council is aware that the BOD is available for consultation. Committee 4-2 cnv.

III) Move that Technology Council, Standards Committee, this committee and SRC develop motion(s) to change the Standards Approval process such that the BOD is removed from providing approval for the majority of Standards

Background: The following issues will have to be looked at during this process

- a) Would ASHRAE lose self-accreditation?
- b) Are there Standards (i.e. – those on continuous maintenance, unresolved commenters, etc.) that the BOD should approve or other criteria (such as negative votes or controversies) that the BOD should be available for consultation. Committee 4-2 cnv

IV) Move that Technology Council, this committee and SRC makes revision to the ROB to have new Standards and Guidelines development approval reside with Technology Council in lieu of the BOD.

Background: Any individual, group, etc. may propose a Standard or Guideline. This will remove the BOD from the process. The BOD may be consulted by Technology Council for any given Standard or Guideline. Committee 6-0 cnv

- V) **Move that SRC change the ROB to have Councils and other ASHRAE Groups take responsibility for developing the nominees (include input from CRC's, member's nominations and other methods) and election of members to serve on committee's and groups reporting to them in lieu of the BOD. Presidential appointments will remain unchanged with Councils and ASHRAE Groups responsible for providing individuals for consideration along with the solicitation from CRC's, members and other methods of creating a slate.**

Background: This will remove from the BOD the responsibility so they can spend time on strategic issues. This allows for improvement of creating of a slate and election of members since Councils and other ASHRAE Groups will have responsibility for selecting the members of the bodies reporting to them. Committee 6-0 cnv

- VI) **Move that Honors and Awards review which awards should be approved by the BOD due to the prestige of the award and propose changes to the ROB for presentation to the BOD for approval.**

Background: Reduce the awards that require BOD approval. Committee vote 6-0.

- VII) **Move that VP's be removed from Chair and Vice Chair of PEC and TC.**

Background: The intent is to free up VP's from operational duties so they can concentrate on strategic initiatives of the Society. These two Councils can be led by former members of the Council. Communication back to the BOD and Excom will be from the BOD members that service on the Councils. Committee 6-0 cnv

- VIII) **Move that Excom be expanded in membership by adding two BOD members. These BOD members to Excom shall be elected by the BOD. One will be assigned to serve on Technology Council and one will be assigned to Pub Ed Council.**

Background: These BOD members will serve on Excom and facilitate communication between the two Councils and Excom. Committee 3-2-1 cnv on adding BOD members and Committee 4-1 cnv on the number to add

Information Items:

- 1) This committee is looking at a change to add a BOD subcommittee to be the reporting body for some of the committees and groups reporting to the BOD or Excom. Intent is to remove the number of reports to streamline the BOD governance function.
- 2) Thank you to SRC for bringing forward ROB changes at this meeting for reducing the size of the ROB and changing our Rules for Meetings.

Respectively submitted for the committee by Art Giesler, Chair



Board of Directors Meeting

Open Session Agenda

Date - Time

Location

1. **CALL TO ORDER -**
2. **CODE OF ETHICS** - *In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and shall avoid all real or perceived conflicts of interest.*
(Code of Ethics: <https://www.ashrae.org/about/governance/code-of-ethics>)
(Core Values: <https://www.ashrae.org/about/ashrae-s-core-values>)
3. **ROLL CALL/INTRODUCTIONS -**
4. **REVIEW OF MEETING AGENDA -**
5. **STRATEGIC ISSUES (items subject to change)**
 - A. **FINANCE**
 - B. **MEMBERSHIP**
 - C. **DECARBONIZATION**
 - D. **LOOK INTO THE FUTURE**
6. **COUNCIL REPORTS**
 - A. **Members Council -**
 - B. **Publishing and Education Council -**
 - C. **Technology Council -**

*Indicates Attachment

- 7. COMMITTEE REPORTS**
 - A. Executive Committee -
 - i. Date
 - ii. Date
 - B. Committee 1 -
 - C. Committee 2 -
 - D. Committee 3 -
 - E. Committee 4 -
- 8. EXECUTIVE SESSION (Separate Agenda)**
- 9. OLD BUSINESS**
 - A.
- 10. NEW BUSINESS**
 - A.* PEAC Request -
- 11. UPCOMING MEETINGS**
 - Post Winter Conference Information
 - Conf. Call | TBD
- 12. ADJOURNMENT**

*Indicates Attachment