



MINUTES
BOARD OF DIRECTORS MEETING

Monday, August 10, 2020

Approved by the Board of Directors on October 15, 2020.

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Board of Directors Meeting
Monday, August 10, 2020

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PRINCIPAL APPROVED MOTIONS

Board of Directors Meeting
Monday, August 10, 2020

No. - Pg.	Motion
1 - 2	That the minutes from the June 23, 2020 and July 1, 2020 Board of Directors meetings be approved
2 - 2	That the Board of Directors approve the Memorandum of Understanding (MOU) with Air Movement and Control Association (AMCA), as shown in ATTACHMENT A.
3 - 3	That Society pursue the direct purchase option of photovoltaic for 180 Tech Pkwy.
4 - 7	That BSR/ASHRAE Addendum <i>v</i> (<i>updates the normative references</i>) to ANSI/ASHRAE Standard 62.2-2019, <i>Ventilation and Acceptable Indoor Air Quality in Residential Buildings</i> , be approved for publication.
5 - 7	That BSR/ASHRAE/ASHE Addendum <i>a</i> (<i>clarifies filtration requirements</i>) to ANSI/ASHRAE/ASHE Standard 170-2017, <i>Ventilation of Health Care Facilities</i> , be approved for publication.
6 - 7 and 8	<p>That The following motions be approved via consent:</p> <ul style="list-style-type: none"> ○ That BSR/ASHRAE/ICC/USGBC/IES Addendum <i>o</i> (<i>Section 5 Non-Core</i>) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, <i>Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings</i>, be approved for publication. ○ That BSR/ASHRAE/ICC/USGBC/IES Addendum <i>s</i> (<i>Section 6 Non-Core</i>) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, <i>Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings</i>, be approved for publication. ○ That BSR/ASHRAE/ICC/USGBC/IES Addendum <i>ab</i> (<i>view requirements</i>) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, <i>Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings</i>, be approved for publication. ○ That BSR/ASHRAE/ICC/USGBC/IES Addendum <i>af</i> (<i>Section 10 Non-Core</i>) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, <i>Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings</i>, be approved for publication. ○ That BSR/ASHRAE/ICC/USGBC/IES Addendum <i>aw</i> (<i>removes pre-existing refrigerant requirements</i>) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, <i>Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings</i>, be approved for publication. ○ That BSR/ASHRAE/ICC/USGBC/IES Addendum <i>bb</i> (<i>Energy Efficiency Backstop</i>) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, <i>Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings</i>, be approved for publication.



MINUTES
BOARD OF DIRECTORS MEETING

Monday, August 10, 2020

MEMBERS PRESENT:

Chuck Gulledge, President
Mick Schwedler, President-Elect
Farooq Mehboob, Treasurer
Don Brandt, Vice President
Bill Dean, Vice President
Tim McGinn, Vice President
Bill McQuade, Vice President
Jeff Littleton, Secretary
Chris Phelan, Region I DRC
Jeff Clarke, Region II DRC
Dunstan Macauley, 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

Kevin Amende, Region IX RMCR
Devin Abellon, Region X DRC
Russell Lavitt, Region XI DRC
Robin Bryant, Region XII DRC
Apichit Lumlertpongpana, Region XIII DRC
Andres Sepulveda, Region XIV DRC
Ahmed Alaa Eldin Mohamed, RAL DRC
Kelley Cramm, DAL
Wade Conlan, DAL
Ken Fulk, DAL
Katherine Hammack, DAL
Jaap Hogeling, DAL
Sarah Maston, DAL
Chandra Sekhar, DAL
Adrienne Thomle, DAL
Ashish Rakheja, DAL

GUESTS PRESENT:

David Delaquila
Larry Smith
John Constantinide
Doug Cochrane
Ginger Scoggins

Sheila Hayter
Eileen Jensen

STAFF PRESENT:

Candace DeVaughn, Manager - Board Services
Chandrias Jacobs, Coordinator - Board Services
Joyce Abrams, Director - Member Services
Vanita Gupta, Director - Marketing
Kim Mitchell, Chief Development Officer
Mark Owen, Director - Publications & Education

Stephanie Reiniche, Director - Technology
Craig Wright, Director - Finance & Admin. Services
Alice Yates, Director - Government Affairs
Lilas Pratt, Manager - Special Projects
Tanisha Meyers-Lisle, Procedures Administrator
Daniel Gurley, Manager - Membership
Tony Giometti, Sr. Manager - Conference Programs

CALL TO ORDER

Mr. Gulledge called the meeting to order at 8:05 am.

CODE OF ETHICS

Mr. Gulledge read the code of ethics commitment. He encouraged all in attendance to read the full code of ethics statement, available online.

ROLL CALL/INTRODUCTIONS

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

Kevin Amende, Region IX RMCR, served as alternate for Tyler Glesne, Region IX DRC.

REVIEW OF MEETING AGENDA

Mr. Gulledge reviewed the agenda. There were no changes or additions.

APPROVAL OF MEETING MINUTES

Mr. Zentz moved and Ms. Bryant seconded that

1. The minutes from the June 23, 2020 and July 1, 2020 Board of Directors meetings be approved.

MOTION 1 PASSED (Unanimous Voice Vote, CNV).

EXCOM REPORT TO THE BOD**JULY 2, 2020**

Mr. Gulledge reviewed action items from the July 2, 2020 ExCom meeting.

BEQ will provide a report at the Fall BOD meeting to allow them more time to finalize their recommendations.

AUGUST 5, 2020

Mr. Gulledge reviewed action items from the August 5, 2020 ExCom meeting.

Mr. Gulledge moved that

2. The Board of Directors approve the Memorandum of Understanding (MOU) with Air Movement and Control Association (AMCA), as shown in ATTACHMENT A.

Editorial edits, shown in ATTACHMENT B, were discussed and accepted without objection.

MOTION 2 PASSED (Unanimous Voice Vote, CNV)

HQ UPDATE

Mr. Gulledge yielded the floor to Ms. Scoggins.

Ms. Scoggins provided an update on the new ASHRAE Headquarters building.

There were issues with the DOAS units and compressors reducing humidity to an acceptable level; this delayed the installation of millwork and carpeting. DOAS should be installed this week and the contractor is committed to September 30 for substantial completion.

The official move-out date is the end of October.

The budget has not changed and there have been no substantial changes to donations.

There is \$482,000 remaining in the contingency fund. No additional expenses, which would require contingency funds, are expected.

Anticipating an approximate rebate from Georgia Power of \$100,000. The exact rebate amount is not known at this time.

180 TECH PKWY PV SOLUTIONS

Ms. Scoggins reported that when the HQ project was approved, there were not sufficient funds to support the PV. An RFQ was issued and Creative Solar was selected.

Creative Solar has provided two options for the HQ building's PV solutions. The first is a 20-year lease option with six- and ten-year buyout options. The terms of the lease include all maintenance, insurance, and asset management. The full cost over the 20-year period is over \$1 million.

The buyout terms would require 10% down and would allow a four-month payout.

The second option is a direct purchase option.

Installation will take about four months and will occur after the move-in date.

There is a 25-year pro-rated warranty on the PV panels.

The spec sheet shows that the PV panels were manufactured in Singapore.

It was suggested that Development be engaged to determine if there is an appetite to have the solar panels sponsored.

Mr. Wright investigated the cost of obtaining a loan to cover the cost of the PV and determined that the interest rate would be 3%. The lease costs are estimated at 8-9%.

Ms. Cramm moved and Mr. Fulk seconded that

3. Society pursue the direct purchase option of photovoltaic for 180 Tech Pkwy.

MOTION 3 PASSED (Unanimous Voice Vote, CNV).

The Building Ad Hoc was asked to proceed with the direct purchase option of PV for 180 Tech Pkwy and determine the final arrangement and where the funds will come from.

REPORTS OF BOARD TASK GROUPS

PROACTIVE DIVERSITY

Mr. McGinn reported that the task group has been charged with responding to requests from members to look at ASHRAE policy and custom in response to the recent Black Lives Matter social movement.

The first of a multi-step process is to determine what Black Lives Matter means to ASHRAE and how Society could/should respond to this social movement. Next, the findings will be summarized and like organizations will be contacted to determine how they have responded.

The task group is taking a measured and thoughtful approach to the charge.

The task group is chaired by Tim McGinn and the members are Sheila Hayter, Robin Bryant, Andres Sepulveda, Dunstan Macauley and the staff liaison is Tanisha Meyers-Lisle.

Mr. McGinn yielded the floor to Mr. Macauley.

Mr. Macauley asked if BOD members see their workplaces and Society as representative of the engineering community as a whole.

Ms. Cramm stated that it would be helpful to hold up a mirror to the high-profile positions, both in volunteer leadership and staff leadership. Need to proactively work on that.

Ms. Maston stated that Society needs to work harder to proactively change the industry; making sure that opportunities are available to everyone. Could be more diverse than it is now.

Ms. Bryant stated that Society can't wait until high school to engage students, have to start earlier. Society has programs in place, but need to tweak and refocus them. Should also reach out to communities of lower socioeconomic status and engage HBCUs.

Mr. Mehboob stated that being an ASHRAE member, he has never felt any lack of diversity; RAL has 17 countries. ASHRAE platform is the only platform where people come together as friends while their countries are at war. Have never personally felt any form of discriminations. International membership is a testament to diversity.

His experience is that if there is a group which has not been in the industry, it is unfair to expect that group to end up at the top of our organization. The main issue in the worldwide industry is that there are not enough women in our industry. The profile of our industry does not attract women. Society does not have an issue with Black Lives Matter or brown lives or Chinese lives.

Mr. Macauley stated that the task group would like input from the Regions not in North America. What are some of the challenges? Is there enough equity that all voices are represented? The task group may have been spurred by Black Lives Matter, but the solution must be global.

Mr. Hogeling stated that in the Netherlands, minorities tend not to be interested in the building industry. He doesn't see that there are difficulties, they are just not interested in what we do as professionals.

Mr. Mehboob agreed that the Society's lack of diversity is because the profile of the industry is not attractive to certain groups. Must work to make it attractive to certain groups.

Ms. Bryant stated that Region XII had to overcome some local cultural issues in some chapters because in some countries, there are roadblocks for allowing women to participate.

Ms. Hammack stated that it is interesting that when Women in ASHRAE started, it went from a small group to sell out crowds. Recently heard that some women are leaving ASHRAE because they do not feel comfortable bringing their children to ASHRAE events. Suggested having a 'Future ASHRAE Lounge'

that welcomes and encourages members to bring their kids. Society needs to think of ways to make young parents feel more welcome.

Mr. Clarke stated that at the Region II CRC a group was assembled to bring younger members into the fold. This is something that should be replicated at Annual and Winter Conferences.

Mr. Sepulveda stated that he is more and more convinced that Society needs to make a statement and clearly say how we feel; Society has a voice in the industry. The diversity statement should be the most up-front statement Society has.

Ms. Hammack added that Society needs to show that we are diverse and welcoming.

Mr. Littleton thanked the task group for their excellent work and for the BOD's engagement in this important work. We see ourselves as being very inclusive and welcoming to all people, but there is a big difference between being welcoming and proactively chasing a more diverse Society. It was a real eyeopener how popular and needed Women in ASHRAE was. Have heard anecdotes about the good old boys network in some of the TCs.

Mr. Mehboob stated that Society needs to do a better job with inclusivity, specifically on the technical side. His daughter-in-law was asked if she had children when she visited a TC.

Ms. Maston stated that she got her start in TCs and never had a negative experience. Will take these comments back to TAC as a part of the TC reorganization discussion. Not aware of any diversity discussions at the TC level.

Ms. Reiniche stated that staff has reached out to YEA in the past and the comment was made that younger members do not feel welcome, regardless of background. At the TC training breakfasts, have been reminding members to be more welcoming.

Ms. Bryant stated that the grassroots side has come a long way, but there are still issues and they are not limited to TCs. Her very first introduction to a committee meeting, a male member told her that she was beautiful and intelligent, but fat, and that she should do something about that. If staff hadn't stepped in, she would not have come back. Some of the women within our organization are meaner to each other than the men are.

Mr. Macauley stated that the task group would like to receive more feedback from the BOD. Another session will be conducted later this year. Would like the BOD to consider what opportunities may exist at the grassroots level.

A follow up poll will be sent to the BOD so additional feedback can be provided. Thanked the BOD for all their comments and thanked Mr. Gulledge for the opportunity to serve.

Mr. McGinn thanked Mr. Macauley for his work and asked those who did not have an opportunity to speak to email him. McGinn thanked the BOD for their participation.

Mr. Gulledge thanked Mr. Macauley, Mr. McGinn, and the rest of the task group. Asked that the task group keep the BOD posted on next steps.

STREAMLINING LEAN ASSESSMENT

Mr. Gulledge stated that task group's presentation at the last meeting felt rushed. Ms. Bryant has been asked to give the BOD a high-level recap. This is an opportunity for the BOD to ask strategic questions and to determine if there is an appetite to continue down this path.

Ms. Bryant reported that the task group has continued to have discussions since the last meeting. The work of this group started prior to the budget constraint discussion. The group has been looking at issues that are preventing BOD members from being leaders and how they can be overcome.

The group has begun looking at case studies of other organizations.

Opportunities to discuss the future of ASHRAE at the highest levels don't really happen because of the size of the BOD. The task group wants to find a way to give members a voice on the BOD and make it more productive.

If we didn't keep reinventing ourselves every year, how much more effective could the Society be?

Case studies have shown that productivity of the BOD slowed for every member above 15 that was added.

Mr. Zentz stated that DRCs are wearing so many different hats. What is in the best interest of ASHRAE? The BOD should be looking at the future and not looking at the day to day.

Mr. Hermans stated that the task group did not clearly state the problem to be solved and no metrics for success were provided in the report. If Society goes down this path too strictly, will become a staff driven trade association. Would be useful for the task group to go through the five principles of lean assessment.

The report read as if the group was given a solution and was searching for a problem.

Hermans hoped that actionable implementation would come from the task group. The whole Society needs to be looked at holistically. Define the problem, generate metrics, define a path to success.

It is difficult to make big disruptive changes all at once. It would be better if we evolved as a Society, as opposed to revolution.

There was discussion of the necessity to engage the majority of ASHRAE members and give them a voice on the BOD.

Mr. Schwedler stated that he found himself between two extremes - this is awesome and there is no way this will work. Do we as a BOD think we need to be different? Will a small BOD be more effective in doing that?

Mr. McQuade stated that it is important to think beyond this BOD and this report. Society has a habit of doing streamlining in chunks with no ongoing function or processes to lean out. It is necessary to build in continuous and ongoing effort.

Mr. Gulledge thanked the task group for the hard work that was put into this. Very enlightening of what could be the future.

The task group's work is submitted and vetted out. ExCom will work on determining next steps. Not making any commitments on where this goes today but will continue on the path that was started.

REPORTS OF COMMITTEES AND COUNCILS

PEC AD HOC ON STRATEGIC BUSINESS DEVELOPMENT

This report was deferred at the request of Mr. Dean and Mr. Wentz.

TECHNOLOGY COUNCIL

Mr. McQuade reported that consent motions 1-8 have unresolved commenters. He reminded the BOD that their role is to review these motions for adherence to ASHRAE's Procedures for Standards Actions (PASA) and ANSI Essential Requirements and not technical content.

Full report included in ATTACHMENT C.

Mr. Hermans requested that motion 2 be removed.

Ms. Hammack requested that motions 3, 4, 5, 6, 7, and 8 be removed.

Mr. McQuade moved that

4. BSR/ASHRAE Addendum *v* (*updates the normative references*) to ANSI/ASHRAE Standard 62.2-2019, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*, be approved for publication.

MOTION 4 PASSED (Unanimous Voice Vote, CNV).

Mr. McQuade moved that

5. BSR/ASHRAE/ASHE Addendum *a* (*clarifies filtration requirements*) to ANSI/ASHRAE/ASHE Standard 170-2017, *Ventilation of Health Care Facilities*, be approved for publication.

MOTION 5 PASSED (Voice Vote, CNV). Mr. Hermans abstained.

Mr. McQuade moved that

6. The following motions be approved via consent:
 - That BSR/ASHRAE/ICC/USGBC/IES Addendum *o* (*Section 5 Non-Core*) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.
 - That BSR/ASHRAE/ICC/USGBC/IES Addendum *s* (*Section 6 Non-Core*) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.
 - That BSR/ASHRAE/ICC/USGBC/IES Addendum *ab* (*view requirements*) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.

- That BSR/ASHRAE/ICC/USGBC/IES *Addendum af (Section 10 Non-Core)* to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.
- That BSR/ASHRAE/ICC/USGBC/IES *Addendum aw (removes pre-existing refrigerant requirements)* to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.
- That BSR/ASHRAE/ICC/USGBC/IES *Addendum bb (Energy Efficiency Backstop)* to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.

MOTION 6 PASSED (Voice Vote, CNV). Ms. Hammack abstained.

PUBLISHING AND EDUCATION COUNCIL

Mr. Dean reported on behalf of the Council.

The ad hoc report was not presented today, but the Council will be implementing action items outlined in the report. BOD members with additional comments should email them to Mr. Dean, Mr. Wentz, or Mr. Brandt; ideas will be collected and implemented over the next year.

Mr. Dean was asked about the previous request to make all standards available for viewing at no cost. He reported that most standards are already available for viewing but not printing.

INFORMATION ITEMS

PRESIDENTIAL TRAVEL (VISITS MADE THROUGH AUGUST 8, 2020)

Mr. Gulledge reported that this is a tool that Presidents will use going forward to reach the chapters that haven't seen an ASHRAE President in a number of years. Mr. Gulledge intends to visit all chapters in ASHRAE, some of those visits will be in-person.

From a tracking standpoint, BOD and chapter meetings will be captured as well. The intent is to meet with the chapters and serve them the way they want to be served.

EXECUTIVE SESSION

Executive session was called at 11:06 am.

Open session reconvened at 12:04 am.

UPCOMING MEETINGS

The next BOD meeting will be conducted virtually on October 15, 2020 from 8:00 am until noon ET.

ADJOURNMENT

The meeting adjourned at 12:04 am.

A handwritten signature in black ink, appearing to be 'JH Littleton', with a horizontal line extending to the right.

Jeff H. Littleton, Secretary

ATTACHMENTS:

- A. AMCA MOU
- B. Editorial Edits to AMCA MOU
- C. Technology Council Report to the BOD



Memorandum of Understanding ASHRAE and AMCA

Founded in 1894, ASHRAE, Atlanta, Georgia is a society of engineers that serves humanity by advancing the arts and sciences of heating, ventilation, air-conditioning, refrigeration and their allied fields. The ASHRAE vision is a health and sustainable built environment for all.

Founded in 1955, AMCA is an association of manufacturers whose's mission is to advance the knowledge of air systems and uphold industry integrity on behalf of AMCA member companies worldwide.

ASHRAE and AMCA agree to support the Memorandum of Understanding to advance and promote the mutual interests of their respective members. We are committed to working together toward on the following activities and goals:

CONSISTENT LEADERSHIP COMMUNICATION

Recognizing the importance of communication in organizational collaboration, both organizations commit to hold a liaison meeting annually (either in person or via conference call) of designated ASHRAE/AMCA senior representatives to:

- Ensure ongoing advancement of collaborative projects.
- Keep each respective organization informed of major initiatives.
- Discuss new opportunities for collaboration.

ASHRAE/AMCA shall take responsibility for initiating the first annual liaison meeting. Action items with assigned responsibilities shall be recorded at each meeting. The parties responsible for ensuring this MOU is actively pursued through the term of the agreement are:

For ASHRAE:

Jeff Littleton
Executive Vice President
ASHRAE
1791 Tullie Circle, NE
Atlanta, GA 30329
Phone: 404-636-8400
Email: jlittleton@ashrae.org

For AMCA:

Mark Stevens
Executive Director
AMCA International
30 West University Drive
Arlington Heights, IL 60004
Phone: 847-394-0150
Email: mstevens@amca.org

CONFERENCES AND MEETINGS

Each organization agrees to provide the other with a meeting invitation and two complimentary VIP registrations to ~~the~~their respective primary annual meetings.

ASHRAE and AMCA agree to explore opportunities to provide speakers at the other organization's meetings to help provide updates and perspectives on technologies and trends of mutual interest.

Where mutually beneficial, each organization shall help publicize the other organization's meetings and promote attendance.

CHAPTER/REGION COLLABORATION

ASHRAE and AMCA agree to coordinate promotion of joint grassroots meetings of respective members. Exchange of Chapter/Region leader contact information will be considered as one way to accomplish this objective.

ADVOCACY

Where mutually beneficial and to the extent allowed by laws and corporate policies, ASHRAE and AMCA agree to work together on common public affairs goals and ideologies. During annual liaison meetings, public affairs strategies will be discussed and common goals identified. Collaborative opportunities to be considered include:

- Joint promotion of codes and standards at the local, state and federal levels.
- Promoting mutually beneficial positions during the development and passage of state and federal legislation.
- Education of legislators on issues important to the members of each organization.

PUBLICATIONS

Recognizing that electronic and print publications are a primary means of disseminating new technologies, trends and practices, ASHRAE and AMCA agree to:

- Provide at least one complimentary subscription the primary membership periodical to be received at the headquarters location of the other organization.
- Explore opportunities to jointly produce publications of mutual benefit.
- Cross-market each organization's publications where appropriate and with industry standard distributor discounts.
- ~~Use periodicals to~~Cross-promote the other organization's events, publications and other activities.
- Explore mutually beneficial ways to ~~translate issue~~ publications in different languages for member benefit. [SM-A111]

EDUCATION

As leading providers of conventional and online educational services and in recognition of the vital role professional development has for our respective members, ASHRAE and AMCA agree to:

- Cross-market educational offerings and the regional, national and international levels.
- Explore opportunities to co-develop new courses or other training programs that take advantage of overlapping and complimentary expertise between ASHRAE and AMCA.
- Discuss ways that [educational](#) certifications programs can be jointly developed or promoted.

TECHNICAL ACTIVITIES COORDINATION

ASHRAE and AMCA agree to foster technical cooperation in areas of common interest by:

- Encourage members in each organization to participate [on-in](#) technical committees and task forces.
- Provide opportunities to participate in and comment on proposed standards, guidelines, policies, and position statements developed on technical subjects as they relate to [buildings HVAC&R](#) and community developments.
- Establish liaison representatives to key technical committees where mutually beneficial to do so.

RESEARCH

Recognizing the importance research plays in accelerating the transformation to a more sustainable built environment, ASHRAE and AMCA agree to:

- Promote research in areas where research results will add to the body of knowledge in air movement and control [issuesapplications](#);
- Disseminate research results quickly, focusing on high-impact findings.
- Identify opportunities for research funding from other sources.

TERMINATION

Either party may terminate this MOU, with or without stated cause, upon providing the other party with thirty (30) days written notice of intent to terminate.

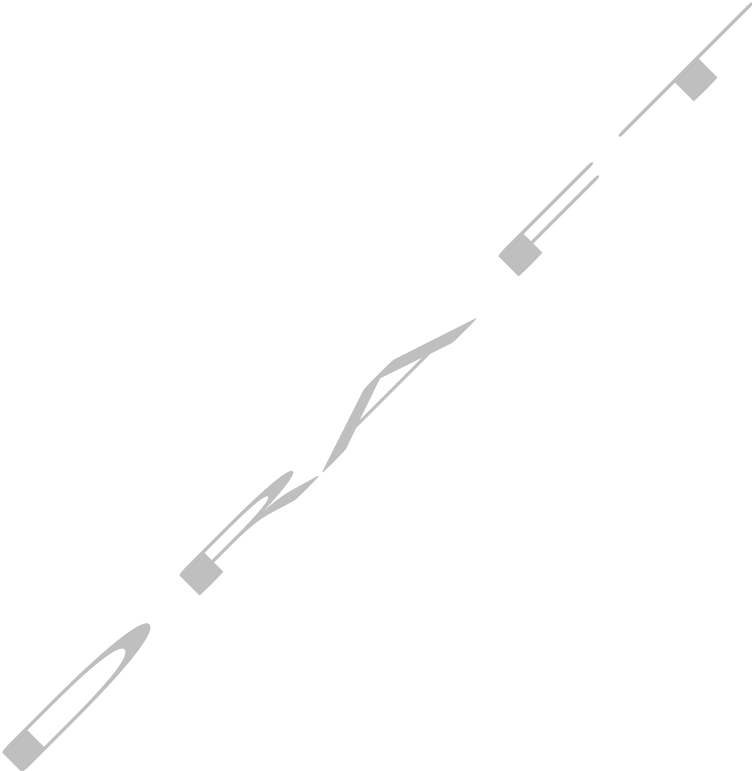
TERM

The term of this Memorandum of Understanding shall begin when signed by both parties and shall terminate at the end of three (3) years unless extended at that time by written agreement.

LEGAL STANDING

This MOU reflects a commitment by ASHRAE and AMCA to continue and enhance their working relationship and individual efforts toward achieving mutual objectives described above. It does not create a binding obligation or agreement between the two organizations, and neither organization has an obligation to negotiate toward or enter into a binding written agreement. In addition, this MOU does not create a partnership, joint venture, fiduciary relationship or similar relationship between ASHRAE and AMCA. Furthermore, it is understood that this Memorandum of Understanding is conceived as a

dynamic document, meant to change as circumstances and priorities warrant. It may be modified or amended by written agreement between both organizations.



FOR ASHRAE

Dave Johnson
Chairman

Signature

Date

Mark Stevens
Executive Director

Signature

Date

FOR AMCA

Darryl Boyce
President

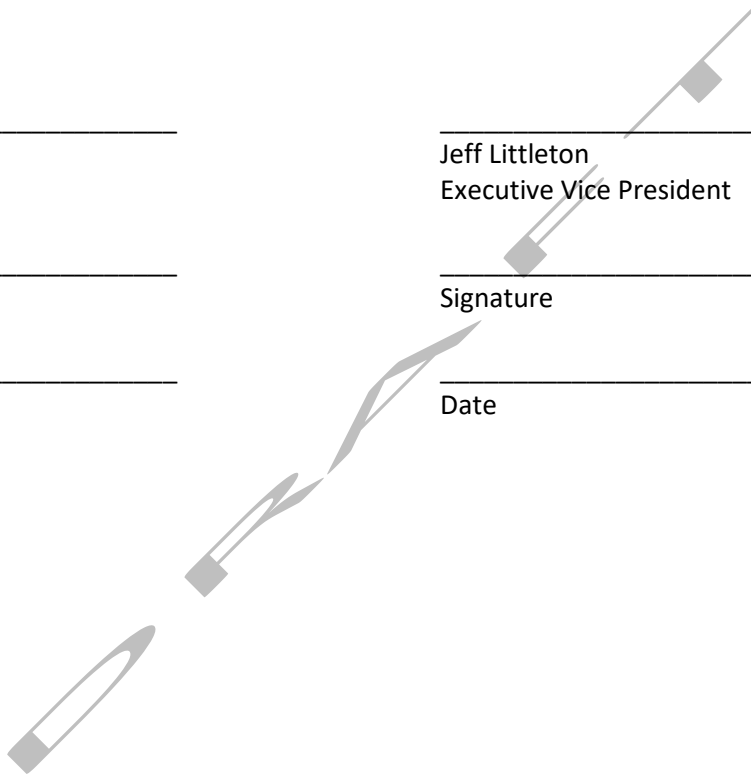
Signature

Date

Jeff Littleton
Executive Vice President

Signature

Date



DeVaughn, Candace

From: Kelley Cramm <Kelley.Cramm@hendersonengineers.com>
Sent: Friday, August 7, 2020 12:55 PM
To: DeVaughn, Candace
Subject: RE: REVIEW: REVISED BOD Agenda - August 10

Candace:

I have a few suggested minor edits to the ASHRAE/AMCA MOU. See below.

On the first page:

ASHRAE and AMCA agree to support the Memorandum of Understanding to advance and promote the mutual interests of their respective members. We are committed to working together ~~toward~~ on the following activities and goals:

On page two:

PUBLICATIONS

Recognizing that electronic and print publications are a primary means of disseminating new technologies, trends and practices, ASHRAE and AMCA agree to:

- Provide at least one complimentary subscription ~~the~~ primary membership periodical to be received at the headquarters location of the other organization.

On page 3:

EDUCATION

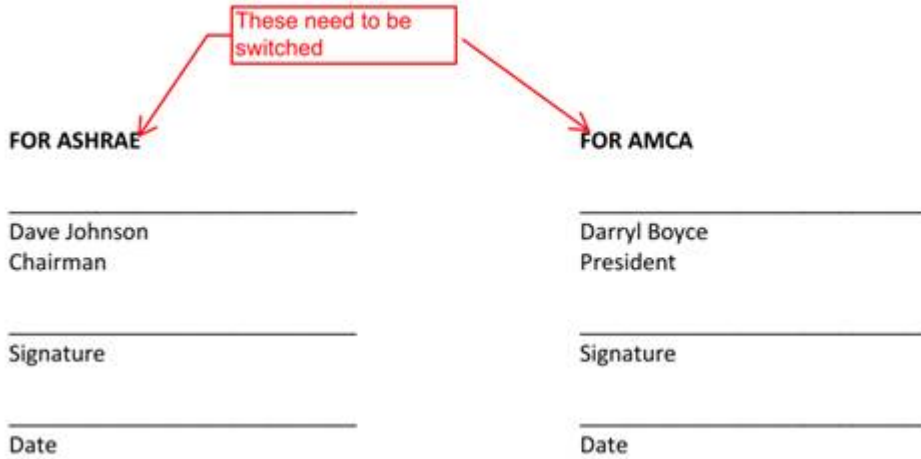
As leading providers of conventional and online educational services and in recognition of the vital role professional development has for our respective members, ASHRAE and AMCA agree to:

- Cross-market educational offerings ~~and~~ the regional, national and international levels.

LEGAL STANDING

This MOU reflects a commitment by ASHRAE and AMCA to continue ~~and~~ enhance their working relationship and individual efforts toward achieving mutual objectives described above. It does not

On page 5:



Best Regards,

KELLEY CRAMM PE, LEED® AP BD+C
Mechanical Technical Leader | Associate

HENDERSON ENGINEERS
TEL (913) 742-5672
kelley.cramm@hendersonengineers.com

LICENSED IN GA, KS, MO, NE

HENDERSON PROUD SINCE 1970 | JUST GETTING STARTED.

From: DeV Vaughn, Candace <cdevaughn@ashrae.org>
Sent: Friday, August 7, 2020 11:03 AM
Subject: REVIEW: REVISED BOD Agenda - August 10

Hello Everyone,

Attached is the revised agenda for the August 10th BOD meeting. The revised agenda has also been posted to the BOD Basecamp.

BOD Members, please remember to dress in business attire for the virtual group photo at the start of the meeting.

All the Best,
Candace



Shaping Tomorrow's
Built Environment Today

ashrae.org

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For a full list of ASHRAE's available resources on COVID-19 visit ashrae.org/covid19

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REPORT TO THE BOARD OF DIRECTORS From Technology Council

Recommendations for Board Approval:

NOTE: 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 any 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.

Consent motions 1 - 8 have unresolved commenters or negative project committee votes but no negative votes by Standards Committee. The reasons for the negative votes were technical in nature with no alleged process violations subject to appeal. Please refer to the analysis sheets for the full detail on the reasons for negative votes and/or unresolved commenters and a summary of Project Committee responses that were distributed prior to the meeting.

STANDARDS PUBLICATION MOTIONS

1. Standards Committee recommends that BSR/ASHRAE Addendum *v* (*updates the normative references*) to ANSI/ASHRAE Standard 62.2-2019, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*, be approved for publication.

StdC VOTE: 21-0-0, CNV

2. Standards Committee recommends that BSR/ASHRAE/ASHE Addendum *a* (*clarifies filtration requirements*) to ANSI/ASHRAE/ASHE Standard 170-2017, *Ventilation of Health Care Facilities*, be approved for publication.

StdC VOTE: 20-0-1¹, CNV

3. Standards Committee recommends that BSR/ASHRAE/ICC/USGBC/IES Addendum *o* (*Section 5 Non-Core*) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.

¹ Erick Phelps abstained because he is a member of the SSPC.

StdC VOTE: 20-0-1², CNV

- Standards Committee recommends that BSR/ASHRAE/ICC/USGBC/IES Addendum *s* (Section 6 Non-Core) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.

StdC VOTE: 20-0-1³, CNV

- Standards Committee recommends that BSR/ASHRAE/ICC/USGBC/IES Addendum *ab* (view requirements) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.

StdC VOTE: 20-0-1⁴, CNV

- Standards Committee recommends that BSR/ASHRAE/ICC/USGBC/IES Addendum *af* (Section 10 Non-Core) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.

StdC VOTE: 20-0-1⁵, CNV

- Standards Committee recommends that BSR/ASHRAE/ICC/USGBC/IES Addendum *aw* (removes pre-existing refrigerant requirements) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.

StdC VOTE: 20-0-1⁶, CNV

- Standards Committee recommends that BSR/ASHRAE/ICC/USGBC/IES Addendum *bb* (Energy Efficiency Backstop) to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, be approved for publication.

StdC VOTE: 20-0-1⁷, CNV

Respectfully Submitted,

Bill McQuade

William McQuade
Technology Council Chair

² Larry Schoen abstained because he is a member of the SSPC.

³ Larry Schoen abstained because he is a member of the SSPC.

⁴ Larry Schoen abstained because he is a member of the SSPC.

⁵ Larry Schoen abstained because he is a member of the SSPC.

⁶ Larry Schoen abstained because he is a member of the SSPC.

⁷ Larry Schoen abstained because he is a member of the SSPC.



MEMORANDUM

DATE: July 24, 2020

TO: Board of Directors
Standards Committee

FROM: Connor Barbaree

SUBJECT: List of potential standards, guidelines, and addenda to be considered during the 2020 ASHRAE Winter Meetings

Attached are analysis sheets for standards, guidelines, and addenda that may be presented to Standards Committee and the Board for publication approval during the upcoming meetings. The analysis sheets are sent in advance of the meeting to provide information in preparation for voting on withdrawal or publication of proposed documents.

If you have a question about the unresolved comments on a publication draft or the attempts to resolve the comments please contact me to view an electronic copy of this documentation, at: cbarbaree@ashrae.org 678-539-1125.

Please note the following important information regarding the analysis sheets:

- Analysis sheets are included only for those publications having unresolved public review commenters and/or negative PC votes.
- PASA require only those publications with unresolved objectors and/or those where legal action has been threatened to come forward to the Board for approval.
- PASA changes approved by ANSI and the ASHRAE Board of Directors allow policy level documents with no unresolved objectors to be processed by staff for publication and reported to Standards Committee and the Board of Directors. These include the following:
 - a. ASHRAE/USGBC/IES/ICC Addenda *be, bf, bg, bn, bs, bt, and bu* to ANSI/ASHRAE/USGBC/IES/ICC Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*
- Due to ANSI requirements, only commenter information for the last full public and any subsequent ISC¹ public reviews on the analysis sheets is provided.
- Information regarding comments reflects on-time comments only.
- In compliance with ANSI requirements, the Project Committee (PC) vote states the vote tallies for yes-votes, no-votes, no-votes without comments, abstentions, and unreturned letter ballots. Votes for Standards Committee do not require this information.
- Standards Committee voting results will be in reports to higher bodies as appropriate.

¹ ISCs are “independent substantive changes” to a previous public review draft. In an ISC only the marked-up changes are open for comment.



ANALYSIS SHEET

RECOMMENDATION TO BOARD OF DIRECTORS FOR APPROVAL TO PUBLISH PROPOSED STANDARD/GUIDELINE/ADDENDUM

1. Designation: BSR/ASHRAE Addendum v to ANSI/ASHRAE Standard 62.2-2019, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*
2. Chair: Iain Walker
3. Cognizant TC: 4.3, *Ventilation Requirements and Infiltration*
4. Public Review Dates: 1st Public Review (FULL): 2/8/2019 to 3/10/2019
2nd Public Review (ISC): 9/6/2019 to 10/6/2019
5. Comments Received: 1st Public Review (FULL): 3 comments from 2 commenters
2nd Public Review (ISC): 5 comments from 1 commenter
6. Unresolved Comments: 1st Public Review (FULL): 2 comments from 1 commenter
2nd Public Review (ISC): 0 comments from 0 commenters
TOTAL: 2 comments from 1 commenter
7. PC Approval Vote: 24-1-0-1-3
(Yes-No-No without comment-Abstain-Ballot not returned)
8. Total # Unresolved Objectors to be Offered Right to Appeal: One (1) - There are 2 unresolved comments from 1 commenter on the 1st public review (Darren Meyers), no unresolved comments on the 2nd (ISC) public review, 2 negative PC votes on the vote for the 1st PPR (Darren Meyers and Aykut Yilmaz), 2 negative project committee votes on the vote for the 2nd ISC PPR (Darren Meyers and Gregg Gregg), and 1 negative PC vote on the final vote for publication with unresolved objectors (Darren Meyers). Gregg Gress has indicated that he is resolved on his negative PC vote on the 2nd ISC PPR and voted Yes on the final vote for publication with unresolved objectors. Aykut Yilmaz has indicated that he is resolved on his negative PC vote. Darren Meyers is unresolved.
9. StdC Vote for Approval: TBD (Yes-No-Abstain)
10. Description: This addendum updates the normative references in Section 9 (References) of Standard 62.2.
11. Summary of Unresolved Comments and Negative PC Votes: There are 2 unresolved comments from 1 commenter on the 1st public review (Darren Meyers), no unresolved comments on the 2nd (ISC) public review, 2 negative PC votes on the vote for the 1st PPR (Darren Meyers and Aykut Yilmaz), 2 negative project committee votes on the vote for the 2nd ISC PPR (Darren Meyers and Gregg Gregg), and 1 negative PC vote on the final vote for publication with unresolved objectors (Darren Meyers). Gregg Gress has indicated that he is resolved on his negative PC vote on the 2nd ISC PPR and voted Yes on the final vote for publication with unresolved objectors.



Aykut Yilmaz has indicated that he is resolved on his negative PC vote. Darren Meyers is unresolved.

Darren Meyers - The staff and excom review of reference standard updates is incomplete and neither contemporary nor accurate for publication in a 2019 edition intended for national code enforcement. Henceforth, its internment to singular adoptions in Federal programs and California.

12. Summary of PC Response
Unresolved Comments and
Negative PC Votes:

Many comments were on the process of how the review of references was carried out. In this case, it was a combination of initial review by members of the 62.2 executive committee and ASHRAE staff followed by full committee review. Some commenters objected to this approach. There were also several comments that were to make technical changes to the body of the standard and not restrict the addendum to simply reviewing the references. The committee asked the commenters to submit these changes separately or the commenters were resolved in subsequent discussion. Other comments were to clarify the reason for having an ISC (a reason was provided to the commenter) and to make editorial changes to the addendum (these editorial changes were made).

Response to Darren Meyers: Without any specifics on what is “incomplete” in the review, I refer to the committee’s responses to Darren Meyer’s comments on this addendum available in ASHRAE’s on-line comment database.

13. Galley Status:

The Chair has approved the galleys.

Addendum v updates the normative references in Section 9 (References).



ANALYSIS SHEET

RECOMMENDATION TO BOARD OF DIRECTORS FOR APPROVAL TO PUBLISH PROPOSED STANDARD/GUIDELINE/ADDENDUM

1. Designation: BSR/ASHRAE/ASHE Addendum *a* to ANSI/ASHRAE/ASHE Standard 170-2017, *Ventilation of Health Care Facilities*
2. Chair: Michael Sheerin
3. Cognizant TC: 9.6, *Healthcare Facilities*
4. Public Review Dates: 1st Public Review (FULL): 9/6/2019 to 10/21/2019
2nd Public Review (ISC): 4/17/2020 to 6/1/2020
5. Comments Received: 1st Public Review (FULL): 11 comments from 5 commenters
2nd Public Review (ISC): 2 comments from 2 commenters
6. Unresolved Comments: 1st Public Review (FULL): 3 comments from 1 commenters
2nd Public Review (ISC): 0 comments from 0 commenters
TOTAL: 3 comments from 1 commenters
7. PC Approval Vote: 13-0-0-2-4
(Yes-No-No without comment-Abstain-Ballot not returned)
8. Total # Unresolved Objectors to be Offered Right to Appeal: Four – There are 3 unresolved comments from 1 commenter on the 1st full public review (Brandon Damas), 0 unresolved comments on the 2nd ISC public review, 4 negative PC votes on the vote for the 1st publication public review (Michael Keen, Dan Koenigshofer, Kenneth Mead, Paul Ninomura), 2 negative PC votes on the vote for the 2nd ISC publication public review (Kenneth Mead, Kevin Scarlett) and no negative PC votes on the vote for publication with unresolved objectors. Dan Koenigshofer and Kevin Scarlett have indicated that they are resolved on their negative PC votes. Kenneth Mead and Paul Ninomura have indicated they are unresolved on their negative PC votes. Unresolved objectors: Brandon Damas, Michael Keen, Kenneth Mead, Paul Ninomura.
9. StdC Vote for Approval: TBD (Yes-No-Abstain)
10. Description: This addendum clarifies filtration requirements on a space by space basis. The filtration levels designated, and their rational basis are included in Informative Appendix C, Table C-1. In brief, this addendum:
 - a. Revises requirements for filters in the body of the standard, removes Table 6.4, and adds filter efficiencies by space to Tables 7-1, 8-1, and 9-1.
 - b. Adds Informative Appendix C: Recommended Filter Efficiencies by Space TypeThis change to filter requirements is expected to have no impact to employee, patient or occupant safety. The change is expected to have a mostly positive cost impact, offering first, operating, and energy cost savings in many spaces. Some room filter requirements are increased, which represent added costs in those locations.



The name and number of spaces in Table 7-1 are modified in Addendum “p”, which includes a similar format of space by space filter assignments. The filter assignments here supersede, or replace those, those shown in “p”. New spaces added in “p” are included here. The name and number of spaces in Tables 8-1 and 9-1 are based on Addendum “n”, which is now published.

11. Summary of Unresolved Comments and Negative PC Votes:

There are 3 unresolved comments from 1 commenter on the 1st full public review (Brandon Damas), 0 unresolved comments on the 2nd ISC public review, 4 negative PC votes on the vote for the 1st publication public review (Michael Keen, Dan Koenigshofer, Kenneth Mead, Paul Ninomura), 2 negative PC votes on the vote for the 2nd ISC publication public review (Kenneth Mead, Kevin Scarlett) and no negative PC votes on the vote for publication with unresolved objectors. Dan Koenigshofer and Kevin Scarlett have indicated that they are resolved on their negative PC votes. Kenneth Mead and Paul Ninomura have indicated they are unresolved on their negative PC votes. Unresolved objectors: Brandon Damas, Michael Keen, Kenneth Mead, Paul Ninomura.

Summary:

Commenter proposed to forbid duct lining downstream of filters. The committee rejected because no evidence was cited to support the additional requirement. Commenter provide an abstract and some committee members are reviewing with the possibility of a new addendum to address this comment.

The commenter proposed to keep minimum filter rating for operating room at MERV 14 in lieu of MERV 16. The higher MERV 16 rating is based on a mass balance equation and maintaining approximately ISO class 7 in the operating room. Subsequent discussion with the commenter has indicated he would accept approval of ISO 16890 as an alternative filter classification that is acceptable. The committee previously voted on an addendum to do that, and it failed to get enough support in the committee for publication. We also note there was a resolved commenter who felt a more stringent requirement of HEPA filters should be the minimum acceptable, so there is a difference of opinion within the community on what code minimum should be.

The third comment concerns a modification to language that was part of addendum p, prior to its publication. The commenter didn’t think there should be revisions to an addendum that wasn’t published yet, but since addendum p has been published he has verbally indicated this is resolved.

12. Summary of PC Response Unresolved Comments and Negative PC Votes:

Summary:

Ample review and presentation of this proposed addendum has been provided in the process leading to the finalization of this document. We encourage that if there are specific adjustments that the committee should consider further, that these be proposed during public review.

The changes proposed in the ISC remove the MERV A requirements for filtration and the requirements that terminal HEPA filters be provided at operating rooms designated for orthopedic procedures,



transplants, neuro-surgery, or dedicated burn unit procedures. Both of those requirements were added in the 1st PPR addendum a and have never been a minimum requirement of Standard 170. Additionally with regard to operating rooms addendum a still increases the minimum filter requirements that currently exist in Standard 170 from minimum MERV 14 to minimum MERV 16 for general operating rooms, and requires HEPA filters for operating rooms designated for orthopedic procedures, transplants, neuro-surgery, or dedicated burn unit procedures. Operating rooms designed after addendum a is approved will have a higher minimum requirement than prior to addendum a.

“Cleanliness of the filter” seems like an operational concern, not a design concern, this concern could be addressed in the upcoming operations guideline. Informative Appendix A states “Filters. Final filters and filter frames should be visually inspected for pressure drop and for bypass monthly. Filters should be replaced, based on pressure drop, with filters that provide the efficiencies specified in Table 6.4” The standard as published recommends the replacement of dirty filters.

13. Galley Status:

The Chair has approved the galleys.

Addendum a clarifies filtration requirements on a space by space basis.



ANALYSIS SHEET

RECOMMENDATION TO BOARD OF DIRECTORS FOR APPROVAL TO PUBLISH PROPOSED STANDARD/GUIDELINE/ADDENDUM

1. Designation: BSR/ASHRAE/ICC/USGBC/IES Addendum o
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*
2. Chair: Roger Hedrick
3. Cognizant TC: TC 2.8
4. Public Review Dates: 1st Public Review (FULL): March 8, 2019 to April 22, 2019
2nd Public Review (ISC): February 14, 2020 to March 30, 2020
5. Comments Received: 1st Public Review (FULL): 9 comments from 4 commenters
2nd Public Review (ISC): 2 comments from 2 commenters
6. Unresolved Comments: 1 unresolved comment
7. PC Approval Vote: 19-3-1-5-1
(Yes-No-No without comment-Abstain-Ballot not returned)
8. Total # Unresolved Objectors: There are 3 negative Project Committee voter (Gitlin, Pape, and Schoen) and 2 unresolved commenters (Gitlin and Coons)
9. StdC Vote for Approval: TBD (Yes-No-Abstain)
10. Description: Addendum o identifies a number of requirements from Standard 189.1, Section 5, as being appropriate for local jurisdictions to consider excluding from their adopted ordinances. These jurisdictional options are designated by “[JO]” in Section 10 and added to Table 4.2. Table 4.2 was previously added and modified by Addenda o, p, q, r, s, and t
11. Summary of Unresolved Comments and Negative PC Votes: **Ms. Gitlin, Mr. Pape and Mr. Schoen:** expressed similar concerns that the concept of providing jurisdictional options is at odds with the TPS of Standard 189.1; these voters are also opposed to making the bicycle parking sections optional.
Ms. Gitlin: concerned that having two sets of requirements is unjustified, i.e. users of 189.1 outside of the U.S. are required to fulfill all mandatory sections while users of the IgCC within the U.S. can select from the jurisdictional options. Also sees an issue in this approach if future committee chairs/members are not required to send Table 4.2 through public review.
Mr. Coons: identified 3 sections to reinstate as JOs, with his primary concern being Section 5.3.3.2 (Greenfield Sites). He has submitted more specific comments on related Addendum aq, which are being addressed separately. As unresolved objectors Ms. Gitlin, Mr. Pape, Mr. Schoen and Mr. Coons should be offered the right to appeal.



12. Summary of PC Response
Unresolved Comments and
Negative PC Votes:

The majority of the PC favored keeping bicycle parking requirements (5.3.7.2.2, 5.3.7.2.3, and 5.3.7.2.5) as jurisdictional options while keeping Greenfield Sites (5.3.3.2), Public Frontage Walkways (5.3.7.1.1.1), and Bicycle Paths (5.3.7.1.2) as core.

The JO approach is based on Table 302.1 included in the 2015 IgCC. The code officials who developed the IgCC prior to the incorporation of Standard 189.1 as the source of the technical requirements felt that the table was a valuable addition for local jurisdictions. When the document is adopted by a jurisdiction as the local code, every requirement in the standard is subject to the discretion of the adopting jurisdiction. The intent of the SSPC with regard to JO designations is to offer guidance to adopting jurisdictions as to which requirements in the standard are essential for a high-performing green building and which requirements may be excluded from the local building code because they may not be applicable everywhere or because they provide a higher level of performance that not all jurisdictions may want to adopt. This guidance is intended to increase adoption of the IgCC and thereby increase adoption of the “core” requirements, which will increase the overall level of protection for human health and the environment compared to a case where none of the requirements are adopted.

13. Galley Status:

The Chair has approved the galleys.

Addendum o – Section 5 Non-Core



ANALYSIS SHEET

RECOMMENDATION TO BOARD OF DIRECTORS FOR APPROVAL TO PUBLISH PROPOSED STANDARD/GUIDELINE/ADDENDUM

1. Designation: BSR/ASHRAE/ICC/USGBC/IES Addendum s
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*
2. Chair: Roger Hedrick
3. Cognizant TC: TC 2.8
4. Public Review Dates: 1st Public Review (FULL): March 8, 2019 to April 7, 2019
5. Comments Received: 1st Public Review (FULL): 2 comments from 2 commenters
6. Unresolved Comments: 1 unresolved comment
7. PC Approval Vote: 20-2-1-5-0
(Yes-No-No without comment-Abstain-Ballot not returned)
8. Total # Unresolved Objectors: There are 3 negative Project Committee voters (Pape, Rosenstock, Gitlin/Janjic-EPA) and 1 unresolved commenter (Gitlin/Janjic-EPA)
9. StdC Vote for Approval: TBD (Yes-No-Abstain)
10. Description: Addendum s identifies the requirements from Section 6 that are appropriate for local jurisdictions to consider excluding from their adopted ordinances.
11. Summary of Unresolved Comments and Negative PC Votes:
Mr. Pape: Opposed to deletion of a requirement to use reclaimed water if available.
Mr. Rosenstock: Does not agree with how the Chapter 6 requirements were delineated as core (e.g metering) vs. non-core (e.g. data management and reporting).
Ms. Gitlin/Janjic (EPA): 1) Opposed to deletion of a requirement to use reclaimed water if available and 2) Concerned that having two sets of requirements is unjustified, i.e. users of 189.1 outside of the U.S. are required to fulfill all mandatory sections while users of the IgCC within the U.S. can select from the jurisdictional options. Also sees an issue in this approach if future committee chairs/members are not required to send Table 4.2 through public review. As unresolved objectors Mr. Pape, Mr. Rosenstock and Ms. Gitlin should be offered the right to appeal.
12. Summary of PC Response Unresolved Comments and Negative PC Votes:
Mr. Pape: the intent was not to remove this option, but rather to remove redundant language since “alternate sources of water” includes reclaimed water.
Mr. Rosenstock: The committee decided that metering is fundamental from a code enforcement standpoint, and therefore should be core, whereas data logging is more of an optional feature that can be activated as needed.



Ms. Gitlin/Janjic: The language causing objections was from the original attempt to phrase the administrative requirements in a way that would suit the needs of both 189.1 and the IgCC. It has appeared in multiple proposed addenda, including this one and published addenda r, p, and q. The committee is attempting to work closely with objectors to achieve a thoughtful resolution of Section 4 concerns while maintaining our commitment to co-sponsor agreements.

13. Galley Status:

The Chair has approved the galleys.

Addendum s – Section 6 Non-Core



ANALYSIS SHEET

RECOMMENDATION TO BOARD OF DIRECTORS FOR APPROVAL TO PUBLISH PROPOSED STANDARD/GUIDELINE/ADDENDUM

1. Designation: BSR/ASHRAE/ICC/USGBC/IES Addendum *ab*
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*
2. Chair: Roger Hedrick
3. Cognizant TC: TC 2.8
4. Public Review Dates: 1st Public Review (FULL): May 17, 2019 to July 1, 2019
2nd Public Review (ISC): February 14, 2020 to March 15, 2020
3rd Public Review (ISC): May 22, 2020 to June 21, 2020
5. Comments Received: 1st Public Review (FULL): 7 comments from 6 commenters
2nd Public Review (ISC): 0 comments
3rd Public Review (ISC): 0 comments
6. Unresolved Comments: 1 unresolved comment
7. PC Approval Vote: 25-2-1-1-0
(Yes-No-No without comment-Abstain-Ballot not returned)
8. Total # Unresolved Objectors: There are 2 negative Project Committee voters (Pape and Gitlin) and 1 unresolved commenter (Gitlin)
9. StdC Vote for Approval: TBD (Yes-No-Abstain)
10. Description: Addendum *ab* adds a requirement to Section 8, "Indoor Environmental Quality," that a view to the outdoors or an indoor atrium must be provided from at least 50% of the floor area in three specific space types: offices, classrooms, and rooms in health care and residential care facilities. New line-of-sight requirements are also included, which are intended to ensure views are available from patient beds.
11. Summary of Unresolved Comments and Negative PC Votes: **Mr. Pape and Ms. Gitlin**: expressed similar concerns that the concept of providing jurisdictional options is at odds with the TPS of Standard 189.1.
Ms. Gitlin: having two sets of requirements is unjustified, i.e. users of 189.1 outside of the U.S. are required to fulfill all mandatory sections while users of the IgCC within the U.S. can select from the jurisdictional options. Also sees an issue in this approach if future committee chairs/members are not required to send Table 4.2 through public review. As unresolved objectors Mr. Pape and Ms. Gitlin should be offered the right to appeal.
12. Summary of PC Response Unresolved Comments and Negative PC Votes: The JO approach is based on Table 302.1 included in the 2015 IgCC. The code officials who developed the IgCC prior to the incorporation of Standard 189.1 as the source of the technical requirements felt that the table was a valuable addition for local



jurisdictions. When the document is adopted by a jurisdiction as the local code, every requirement in the standard is subject to the discretion of the adopting jurisdiction. The intent of the SSPC with regard to JO designations is to offer guidance to adopting jurisdictions as to which requirements in the standard are essential for a high-performing green building and which requirements may be excluded from the local building code because they may not be applicable everywhere or because they provide a higher level of performance that not all jurisdictions may want to adopt. This guidance is intended to increase adoption of the IgCC and thereby increase adoption of the “core” requirements, which will increase the overall level of protection for human health and the environment compared to a case where none of the requirements are adopted.

13. Galley Status:

The Chair has approved the galleys.

Addendum ab – Views



ANALYSIS SHEET

RECOMMENDATION TO BOARD OF DIRECTORS FOR APPROVAL TO PUBLISH PROPOSED STANDARD/GUIDELINE/ADDENDUM

1. Designation: BSR/ASHRAE/ICC/USGBC/IES Addendum *af*
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*
2. Chair: Roger Hedrick
3. Cognizant TC: TC 2.8
4. Public Review Dates: 1st Public Review (FULL): July 12, 2019 to August 26, 2019
5. Comments Received: 1st Public Review (FULL): 7 comments from 6 commenters
6. Unresolved Comments: 1 unresolved comment
7. PC Approval Vote: 19-4-2-3-1
(Yes-No-No without comment-Abstain-Ballot not returned)
8. Total # Unresolved Objectors: There are 4 negative Project Committee voter (Gitlin, Pape, Schoen, Sovocool) and 1 unresolved commenter (Gitlin)
9. StdC Vote for Approval: TBD (Yes-No-Abstain)
10. Description: Addendum *af* identifies a number of requirements from Standard 189.1, Section 10, as being appropriate for local jurisdictions to consider excluding from their adopted ordinances. These jurisdictional options are designated by “[JO]” in Section 10 and added to Table 4.2. Table 4.2 was previously added and modified by Addenda o, p, q, r, s, and t
11. Summary of Unresolved Comments and Negative PC Votes: **Ms. Gitlin, Mr. Pape, Mr. Schoen and Mr. Sovocool:** expressed similar concerns that the concept of providing jurisdictional options is at odds with the TPS of Standard 189.1 and in one case (Sovocool) questioned whether the JO approach is the key to broader adoptability. **Ms. Gitlin (comment):** Concerned that having two sets of requirements is unjustified, i.e. users of 189.1 outside of the U.S. are required to fulfill all mandatory sections while users of the IgCC within the U.S. can select from the jurisdictional options. Also sees an issue in this approach if future committee chairs/members are not required to send Table 4.2 through public review. As unresolved objectors Ms. Gitlin, Mr. Pape, Mr. Schoen and Mr. Sovocool should be offered the right to appeal.
12. Summary of PC Response Unresolved Comments and Negative PC Votes: The JO approach is based on Table 302.1 included in the 2015 IgCC. The code officials who developed the IgCC prior to the incorporation of Standard 189.1 as the source of the technical requirements felt that the table was a valuable addition for local jurisdictions. When the document is adopted by a jurisdiction as the local code, every requirement in the standard is subject to the discretion of the adopting



jurisdiction. The intent of the SSPC with regard to JO designations is to offer guidance to adopting jurisdictions as to which requirements in the standard are essential for a high-performing green building and which requirements may be excluded from the local building code because they may not be applicable everywhere or because they provide a higher level of performance that not all jurisdictions may want to adopt. This guidance is intended to increase adoption of the IgCC and thereby increase adoption of the “core” requirements, which will increase the overall level of protection for human health and the environment compared to a case where none of the requirements are adopted.

13. Galley Status:

The Chair has approved the galleys.

Addendum af – Section 10 Non-Core



ANALYSIS SHEET

RECOMMENDATION TO BOARD OF DIRECTORS FOR APPROVAL TO PUBLISH PROPOSED STANDARD/GUIDELINE/ADDENDUM

1. Designation: BSR/ASHRAE/ICC/USGBC/IES Addendum *aw*
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*
2. Chair: Roger Hedrick
3. Cognizant TC: TC 2.8
4. Public Review Dates: 1st Public Review (FULL): February 14, 2020 to March 15, 2020
5. Comments Received: 1st Public Review (FULL): 0 comments
6. Unresolved Comments: 0 unresolved comments
7. PC Approval Vote: 23-1-0-4-0
(Yes-No-No without comment-Abstain-Ballot not returned)
8. Total # Unresolved Objectors: There are 3 negative Project Committee voters (McHugh, Janjic, and Schoen)
9. StdC Vote for Approval: TBD (Yes-No-Abstain)
10. Description: Addendum *aw* removes the pre-existing refrigerant requirements from Section 9.3.3. These requirements were necessary prior to the institution of wide-sweeping regulations prohibiting the manufacture and use of ozone-depleting substances in the U.S. and most other countries. This section has been reserved to be used in the future as more information becomes available about the developing field of refrigerants and their use in green buildings.
11. Summary of Unresolved Comments and Negative PC Votes: **Mr. McHugh, Ms. Janjic, and Mr. Schoen:** feel that removing all guidance regarding refrigerants is a missed opportunity and that it may premature to remove the language prohibiting CFCs. As unresolved PC voters Mr. McHugh, Ms. Janjic, and Mr. Schoen should be offered the right to appeal.
12. Summary of PC Response Unresolved Comments and Negative PC Votes: After several meetings discussing the issue of refrigerants, the majority felt that it was unnecessary to retain requirements that reference refrigerants that are no longer made or sold, as these prohibitions have been made clear by other regulatory bodies outside of SSPC 189.1.
13. Galley Status: The Chair has approved the galleys.

Addendum *aw* – Delete Refrigerants



ANALYSIS SHEET

RECOMMENDATION TO BOARD OF DIRECTORS FOR APPROVAL TO PUBLISH PROPOSED STANDARD/GUIDELINE/ADDENDUM

1. Designation: BSR/ASHRAE/ICC/USGBC/IES Addendum *bb*
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*
2. Chair: Roger Hedrick
3. Cognizant TC: TC 2.8
4. Public Review Dates: 1st Public Review (FULL): February 14, 2020 to March 15, 2020
5. Comments Received: 1st Public Review (FULL): 1 comment
6. Unresolved Comments: 1 unresolved comment
7. PC Approval Vote: 26-0-0-2-1
(Yes-No-No without comment-Abstain-Ballot not returned)
8. Total # Unresolved Objectors: There is 1 unresolved commenter (Kochkin)
9. StdC Vote for Approval: TBD (Yes-No-Abstain)
10. Description: The addendum clarifies that minimum compliance with Standard 90.1-2019 is required without consideration of on-site or off-site renewable energy.
11. Summary of Unresolved Comments and Negative PC Votes: **Mr. Kochkin** perceived the proposed clarifications to Section 7.5.1 as an increase in stringency. As an unresolved objector Mr. Kochkin should be offered the right to appeal.
12. Summary of PC Response Unresolved Comments and Negative PC Votes: This addendum does not modify the requirements that have been in place since 189.1-2017, which are indeed more stringent than 90.1 Appendix G. It is intended only to clarify when the requirements apply.
13. Galley Status: The Chair has approved the galleys.

Addendum *bb* – Energy Efficiency Backstop