



TECHNOLOGY COUNCIL FALL MEETING
Webinar
Friday, September 28, 2018

NOTE: *These are not the official minutes until approved by Technology Council.
All reports listed in these minutes can be found on Basecamp in folder
2018-09 Fall Webinar*

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MAJOR MOTIONS
Fall Meeting - Friday, September 28, 2018

Motion #	Description
M1	Technology Council meeting minutes from the June 4, 2018 Pre-Houston Webinar and the June 27, 2018 Houston meeting were approved as presented.
M2	Technology Council approved the Standards Committee recommendation that ASHRAE add a line item of \$135,000 to the annual 2019 – 2020 Society budget for reimbursement of travel by ASHRAE participants to international standards development meetings.
M3	Technology Council approved the Standards Committee recommendation that ASHRAE restore \$23,000 for Fiscal Year 2018-2019 that was not carried over from FY 2017-2018 for the development of a User Manual for Standard 100.
CM4	<p>Technology Council approved consent motions 1 through 7 that have no unresolved commenters and no negative votes from the project committee or Standards Committee for publication.</p> <ol style="list-style-type: none"> 1. Standards Committee recommends that BSR/ASHRAE Addendum b (adds simplified ventilation rate procedures) to ANSI/ASHRAE Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality, be approved for publication. 2. Standards Committee recommends that BSR/ASHRAE Addendum k (changes the requirement for filtration of ozone from outdoor air under certain conditions) to ANSI/ASHRAE Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality, be approved for publication. 3. Standards Committee recommends that BSR/ASHRAE/IES Addendum z (revises baseline efficiency ratings) to ANSI/ASHRAE/IES Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings, be approved for publication. 4. Standards Committee recommends that BSR/ASHRAE/IES Addendum ap (revises the supply temperature reset for VAV reheat systems) to ANSI/ASHRAE/IES Standard 90.1- 2016, Energy Standard for Buildings Except Low-Rise Residential Buildings, be approved for publication. 5. Standards Committee recommends that BSR/ASHRAE/IES Addendum aq (clarifies lighting control provisions) to ANSI/ASHRAE/IES Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings, be approved for publication. 6. Standards Committee recommends that BSR/ASHRAE/IES Addendum ar (revises table titles for consistency in the Appendix G) to ANSI/ASHRAE/IES Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings, be approved for publication. 7. Standards Committee recommends that BSR/ASHRAE Addendum h (allows Group A2L refrigerants in applications requiring machinery rooms) to ANSI/ASHRAE Standard 15-2016, Safety Standard for Refrigeration Systems, be approved for publication.
M5	Technology Council approved the proposed TPS for SSPC 62.1, <i>Ventilation for Acceptable Indoor Air Quality</i> , be approved.
M6F	TAC recommended that Technology Council recommend to the Board of Directors that Rule of the Board (ROB) 2.248.002.1 B be modified as noted below. MOTION FAILED.
M7	Technology Council will recommend to the Board of Directors that Rule of the Board (ROB) 2.248.002.2 C be modified.

ACTION ITEM

Summer Conference, Houston, TX - Wednesday, June 27, 2018

AI #	Responsibility	Goal Due Date	Status	Summary
1	TechC Members			<i>Each Tech Council member to nominate two people for committee membership and to notify Mick Schwedler when the nominations have been submitted.</i>

MINUTES
TECHNOLOGY COUNCIL MEETING
Fall Meeting
Friday, September 28, 2018

Attendance:

Voting Members Present

Mick Schwedler, Chair
Dennis Knight, Vice Chair
Van Baxter
Kelley Cramm
Charlie Culp
Steve Emmerich
Douglas Fick
Ken Fulk
Art Giesler
Byron Jones
Tom Lawrence
Larry Markel
Sarah Maston

Absent

Mike Bilderbeck, VM
Martin Dieryckx
Paul Francisco

ASHRAE Staff

Steve Ferguson, Sr. MOS
DD Latham, Admin
Susan LeBlanc, Standards Admin
Lilas Pratt, MOSP
Mike Vaughn, Sr. MORTS

Non-Voting Members Present

Don Brundage
Wade Conlan
Elliott Horner
Tom Justice
Jay Kohler
Rajan Rajendran
John Shonder
Wayne Stoppelmoor
Theresa Weston
David Yashar

1. CALL TO ORDER

Chair, Mick Schwedler, called the meeting to order at 10:05 a.m. Vice Chair, Dennis Knight, was asked to record any action items during the meeting.

Secretary's Note: Quorum was met with 12 voting members, plus Chair.

2. REVIEW OF AGENDA

TechC Chair asked for any changes to the agenda. There being none, the agenda was accepted as presented.

3. MINUTES/ACTION ITEMS

A. Minutes

It was moved by Kelley Cramm and seconded by Doug Fick that:

- M1** Technology Council meeting minutes from the June 4, 2018 Pre-Houston Webinar and the June 27, 2018 Houston meeting be approved as presented. Minutes are posted to Basecamp under *2018_09_28 TechC Fall Webinar*.

TechC Vote: 11-0-1¹-1, CNV

B. Action Items

Action items were reviewed and updated. Copy posted on Basecamp under *2018_09_28 TechC Fall Webinar 03C OPEN ACTION ITEMS as of 6_27_18.pdf*.

¹ Tom Lawrence abstained as he was not present at these meetings.

4. STANDING COMMITTEE REPORTS

A. Standards

Standards Chair, Don Brundage, briefly discussed the proposed Zero Energy Building TPS and the suggestion that it be incorporated into Standard 105. During recent Standards Committee meetings, issues related to conflict, duplication, and harmonization with other ASHRAE Standards arose. No recommendation was made by Standards committee because there's a chance the criteria might neatly fit in Standard 105 (possibly as an Appendix). Don reported he would work with SPC 105 to determine if the committee would consider adding Zero Energy criteria to Standard 105. Copy of report is posted on Basecamp under *2018_09_28 TechC Fall Webinar 04A_StdC Report to TC Fall 2018 Mtg.doc*.

It was moved by Larry Markel that:

- M2** Standards Committee recommend that ASHRAE add a line item of \$135,000 to the annual 2019 – 2020 Society budget for reimbursement of travel by ASHRAE participants to international standards development meetings.

Background: In May 2018, ILS/ISAS recommended that StdC approve a one-year allowance of \$100,000 to reimburse participants representing ASHRAE at meetings for international standards development. While this motion was approved by StdC, the funding amount approved by Technology Council during the Houston Annual Meetings in June was amended to \$30,000 (noting that the feeling is to start at the \$30,000, review expenditures and results to see what ASHRAE gains from this amount first). As those funds only covers finances for the 18 – 19 Society year, ILS/ISAS would like to have this line item included on the annual budget moving forward. *Note: Steve Ferguson, ASHRAE staff, explained to the council the process of how the \$135,000 total was established. In the original ILS/ISAS report, the calculated cost for ASHRAE could be approximately \$135,000/year to ensure full coverage at all ISO meetings. This was calculated by determining there are, on average, 38 possible TC and Working Group meetings ASHRAE is involved with, and the average travel cost for a meeting of that nature (for ASHRAE staff) is \$3,500 per meeting. $38 \times 3,500 = \$133,000$. Often there are multiple technical working group meetings at the same TC meeting which would necessitate multiple technical experts at the same TC meeting.*

TechC Vote: 12-0-0, CNV

It was moved by Larry Markel that:

- M3** Standards Committee recommends that that ASHRAE restore \$23,000 for Fiscal Year 2018-2019 that was not carried over from FY 2017-2018 for the development of a User Manual for Standard 100.

Background: The original User's Manual request and funding were approved in January 2017 for Society Fiscal Year 2017-2018. A portion of the originally approved money, totaling \$52,000, was carried over into Society Fiscal Year 2018-19. Due to some delays, the project did not go out for bid until summer 2018, after the close of Society Fiscal Year 2017-2018. As a result, only the \$52,000 is now available in the budget to fund this project. Two proposals were received in response to the RFP, both at roughly \$75,000, leaving ASHRAE with a \$23,000 budget shortfall for the Standard 100 User's Manual. In order to proceed with the development of the User's Manual, funding will need to be identified and allocated either from ASHRAE, or through outside funding.

Here are recent sales numbers for Standard 100 through August:

- 2018 Standard 100-2015 783 total copies (life to date);
- Standard 100-2018 140 total copies (life to date);

While the sales price of the Standard 100-2018 User's Manual won't be known until it's complete, we estimate, based on other available User's Manuals, the sales price of this Manual would be approximately \$100 (non-member price). Looking at gross sales (rather than net profit), ASHRAE would need to sell approximately 800 User's Manuals to cover a development cost of \$75,000. If the sales price were \$67 to match the lowest price User's Manual in the ASHRAE Bookstore (for 62.2), ASHRAE would need to sell approximately 1000 copies of the User's Manual to cover a development cost of \$75,000.

TechC Vote: 12-0-0, CNV

It was moved by Larry Markel that:

CM4 Consent motions 1 through 7 that have no unresolved commenters and no negative votes from the project committee or Standards Committee be approved for publication.

1. Standards Committee recommends that BSR/ASHRAE Addendum *b* (*adds simplified ventilation rate procedures*) to ANSI/ASHRAE Standard 62.1-2016, *Ventilation for Acceptable Indoor Air Quality*, be approved for publication.
2. Standards Committee recommends that BSR/ASHRAE Addendum *k* (*changes the requirement for filtration of ozone from outdoor air under certain conditions*) to ANSI/ASHRAE Standard 62.1-2016, *Ventilation for Acceptable Indoor Air Quality*, be approved for publication.
3. Standards Committee recommends that BSR/ASHRAE/IES Addendum *z* (*revises baseline efficiency ratings*) to ANSI/ASHRAE/IES Standard 90.1-2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, be approved for publication.
4. Standards Committee recommends that BSR/ASHRAE/IES Addendum *ap* (*revises the supply temperature reset for VAV reheat systems*) to ANSI/ASHRAE/IES Standard 90.1- 2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, be approved for publication.
5. Standards Committee recommends that BSR/ASHRAE/IES Addendum *aq* (*clarifies lighting control provisions*) to ANSI/ASHRAE/IES Standard 90.1-2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, be approved for publication.
6. Standards Committee recommends that BSR/ASHRAE/IES Addendum *ar* (*revises table titles for consistency in the Appendix G*) to ANSI/ASHRAE/IES Standard 90.1-2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, be approved for publication.
7. Standards Committee recommends that BSR/ASHRAE Addendum *h* (*allows Group A2L refrigerants in applications requiring machinery rooms*) to ANSI/ASHRAE Standard 15-2016, *Safety Standard for Refrigeration Systems*, be approved for publication.

TechC Vote: 12-0-0, CNV

It was moved by Larry Markel that:

M5 Standards Committee recommends that the TPS for SSPC 62.1, *Ventilation for Acceptable Indoor Air Quality*, be revised as shown:

TITLE: Ventilation for Acceptable Indoor Air Quality

1. PURPOSE

1.1 The purpose of this standard is to specify minimum ventilation rates and other measures intended to provide indoor air quality that is acceptable to human occupants and that minimizes adverse health effects.

1.2 This standard is intended for regulatory application to new buildings, additions to existing buildings, and those changes to existing buildings that are identified in the body of the standard.

1.3 This standard is intended to be used to guide the improvement of indoor air quality in existing buildings.

2. SCOPE

2.1 This standard applies to spaces intended for human occupancy within buildings except those within dwelling units in residential occupancies in which occupants are non-transient.

2.2 This standard defines requirements for ventilation and air-cleaning-system design, installation, commissioning, and operation and maintenance.

2.3 In addition to ventilation, this standard contains requirements related to certain contaminants and contaminant sources, including outdoor air, construction processes, moisture, and biological growth.

- 2.4** This standard does not prescribe specific ventilation rate requirements for:
- Spaces that contain smoking or that do not meet the requirements in the standard for separation from spaces that contain smoking
 - Patient care areas not listed in this standard ~~Specified patient care spaces~~
 - Laboratories with hazardous materials
 - ~~Industrial spaces with strong industrial sources.~~

BACKGROUND: Proposed changes to the published TPS in Standard 62.1-2016 were initially approved by SPLS on 3/7/2018, followed by StdC on 3/19/2018, and TechC on 4/13/2018. The TPS was submitted for public review as Addendum *i* to 62.1-2016 for a 30-day review from April 27, 2018 to May 27, 2018.

The proposed modifications to the scope focused on industrial spaces in response to commenters from the first public review of Addendum *i* to 62.1-2016. Since the first version of 62 in 1973, industrial spaces are covered in the standard. With the advent of OSHA and increased industrial hygiene practice, the “heavy industry” locations were not appropriately covered by 62 and used different methodology based on concentrations in the workplaces.

There are many “light” manufacturing spaces that are not covered by OSHA PELs because they don’t emit concentrations of chemicals or materials at a high enough rates to trigger an OSHA evaluation. These should be covered by 62.1 because they are not covered elsewhere. The initial thoughts were to try to define in which situations OSHA (or similar agencies in other countries) would come into play whereby the basic ventilation rates in current 62.1 would not be sufficient. The current standard has a ventilation rate in the table 6.2.2.1 (the ventilation rate table) for “General manufacturing (excludes heavy industrial and processes using chemicals).”

The scope statement that went to public review in the spring excluded “Industrial spaces with strong industrial sources” and included a definition for “strong industrial sources” that relied upon OSHA type screening calculations. There were some negative comments in the public review regarding the definition. The committee could not agree on an improved definition in Houston.

The current approach is to eliminate the exclusion of industrial spaces that was in the February scope. We will try to better define within the standard where “General manufacturing (excludes heavy industrial and processes using chemicals)” applies and where it would not apply. This removes the issue from the scope and places it within the sections that prescribe how to use the values in the table.

An idea arose in the SPLS call that the definition for hazardous materials in laboratories may be used for industrial spaces. The chair committed to review that idea with the committee.

If approved by TechC, the revised TPS will be submitted for a 2nd publication public review

TechC Vote: 12-0-0, CNV

B. Research Administration

Chair, John Shonder, reported on RAC’s activities. The full report is available on Basecamp under *2018_09_28 TechC Fall Webinar 4B-RAC-Info. Items.F18.Final.r1.pdf*.

C. Technical Activities

Vice Chair, Jay Kohler, reported on TAC activities. The full report is available for review on Basecamp under *2018_09_28 TechC Fall Webinar 04C-TAC F18 Final.r1.pdf*.

It was moved by Tom Lawrence that:

M6F

TAC recommends that Technology Council recommend to the Board of Directors that Rule of the Board (ROB) 2.248.002.1 B be modified as noted below.

ROB 2.248.002.1 B

Non-voting members include a Board ex-officio member, a coordinating officer, and a staff liaison.

Discussion: Both Art Giesler and Larry Markel sit on the SRC committee and felt this change was not necessary.

MOTION FAILED: 2-10-0, CNV

It was moved by Tom Lawrence that:

M7

TAC recommends that Technology Council recommend to the Board of Directors that Rule of the Board (ROB) 2.248.002.2 C be modified as noted below.

ROB 2.248.002.2 C

All members shall have held at least one leadership role in the Society as chair of a ~~technical committee~~ TC, TG, TRG or MTG prior to joining TAC.

TECH VOTE: 12-0-0, CNV

D. Environmental Health

Chair, Elliott Horner, gave a brief update on EHC activities.

E. Residential

Chair, Theresa Weston reported on RBC's recent meeting. The full report is available on Basecamp under *2018_09_28 TechC Fall Webinar 04F_RBC_Report_to_TechC_2018-9-28F_F.pdf*.

5. SUBCOMMITTEE REPORTS

A. Operations

OPS Chair, Art Giesler, reported on the budgets (income and expenses) for the next three years. Finance committee is looking at revenues and expenses. Tech Council will need to review our programs and search out areas where we can reduce or eliminate expenditures while meeting our objectives for the next few years. Committees need to review the programs and rank them by priority to determine the minimum amount of funding for programs.

B. Special Projects

Special Projects Chair, Ken Fulk, advised that the committee is keeping a close eye on projects in the pipeline.

C. DRSC

DRSC Chair, Dennis Knight, advised the council that no position documents were ready to go forward at this time.

6. SPECIAL COMMITTEE/LIAISON REPORTS

A. Planning

Vice Chair, Dennis Knight, will have a Planning Committee report available for the council after their fall planning meeting.

B. Disaster Response Ad Hoc

Chair, Larry Markel, Disaster Response Ad Hoc, stated that with the recent floods, the ad hoc will be addressing water disasters in their Go Bags.

C. SSPC 90.2

Theresa Weston was happy to report that 90.2 has now moved into the next stage as the last public review received no new comments. A vote for publication is the next step.

Secretaries Note: After the call, SSPC 90.2 approved the document for publication, which was subsequently approved by the BOD at the November 2018 meeting.

D. Nomination Ad Hoc

Chair, Mick Schwedler assigned each Tech Council member the following action item:

AI#1 Each Tech Council member to nominate two people for committee membership and to notify Mick Schwedler when the nominations have been submitted.

7. ADJOURN