



ASHRAE Technical Committee 2.7

ASHRAE TC 2.7 Seismic, Wind and Flood Resistant Design Main Committee Meeting Minutes 3:30pm - 6:00pm, Tuesday, February 4, 2020 Hilton Orlando, L, Lake George B

1. **Opening, Hooti**
 - 1.1. Additions, modifications to the agenda
Meeting called to order at 3:30PM
2. **Introduction of those present, All** [5 minutes]
3. **Confirmation of Current Voting Members, Waters** [3 minutes]
Have quorum – sign in sheet attached
11 voting members present
4. **Review and approval of the minutes, Clark** [3 minutes]
Motion: *Accept Meeting Minutes from Kansas City*
Moved by: *Robert Simmons*
Seconded by: *Matt Clark*
Vote count: *For: 11 Against: 0 Abstained: 0*
5. **ASHRAE Liaisons** [15 minutes]
TC section head update
 - *New meeting space this conference – TC collaboration space for smaller meetings instead of requesting rooms.*
 - *Chair and VC will have report on reorg - Some TCs are combining between now and summer. Meeting space keeps growing, part of strategic plan to reduce that. If TCs do not combine themselves, TAC will step in and combine. ASHRAE needs to reduce cost, this is cost cutting measure.*
6. **Secretary's report, Clark**
No Report [3 minutes]
7. **TC Chair's Report, Hooti** [5 minutes]
TAC is encouraging TCs to combine as much as possible. We could possibly to combine with TC 2. 10.
There will be 9 program tracks for Austin, we have potential for programs to be submitted for Austin.
Would like to include ASHRAE 171 as a test standard for cables – how can we do this as a TC? May need to go up to TAC.
If we want an entity to list a standard, we may be able to get them a standard. If a standard is referenced, people will have to buy in the future
8. **Subcommittee reports (written reports to be given to Secretary)**
 - 8.1. **Standards Subcommittee, Tauby** [15 minutes]
 - 8.1.1. ASHRAE 171 / SPC 171, *Tauby*
ASHRAE Standard 171-2017 - Request TC 2.7 Recommendation
Standard 171 is out for sale.

*It was asked, when should engineers call out this std in their specifications?
Answer is now, in Jim's opinion
Trying to push committees to incorporate ASHRAE 171 into standards.*

8.2. Publications Subcommittee, Carlson

[15 minutes]

8.2.1. Applications Handbook Chapter 55, Carlson

*Have handbook, standard, design manual. Talked about future special publication – flooding guide. Could do a PTAR to get funding
Currently working on the handbook, Seismic, Wind, and Flood. Karl Peterman seismic, Carlson – flooding, need someone for wind portion.*

Had flooding meeting this morning, developed a scope and outline for new flooding chapter. Could be a new chapter or part of chapter 55 – needs to be discussed by committee

For each topic in outline, have people assigned, on track to get something prepared, draft to be completed by the end of May. Will send out to committee for review.

Volunteer for wind chapter – Kenny Hightower, Nick and Jim Tauby

8.2.2. Other publications

8.2.2.1. Practical Guide 2nd Ed., Tauby

Possibility of 3rd edition come out because of wind codes. Jim will check with publications – will have an answer for the next meeting whether they want to do it.

8.2.2.2. Others – HPAC, ASHRAE Journal, etc

8.2.3. Website, Tauby / Clark

Need to have the number and naming convention correct

8.3. Research Subcommittee, Papavizas

[15 minutes]

8.3.1. Research Chair Report

Subcommittee meeting was held earlier today

Chairs breakfast –

- *changes to level of funding. Used to be below 100k, approved by RAC, now up to 150K, Tech council approval up to 250k, above that is BOD approval.*
- *Survey sent out for Strategic plan for research, realigning with 2019-2024 overall strategic plan. ASHRAE will resnd shortly, everyone is asked to complete survey. If you don't get it, Email Mike Vaughn. Email came from RAP staff, on Jan. 13th.*

Update given by Section 2 research head – Bill Hutzel

- *More preferable to have research project come through TC*
- *Currently 2M in funding. Recently only had 2 RTARS*

Research ideas

- *RTAR drafted for 75lb rule*
- *12in to 24in rule exemptions – worth including in the 75lb rule research.*
- *75lb RTAR will include the 12-24in rule. Target to get RTAR in by May 15th. Approach ATC for co-funding research. ASHRAE may be able to do a MOU with ATC. Any inline equipment, duct and pipe.*

8.3.2. Current research projects

8.3.3. Proposed research

8.3.4. Outside research/testing

8.3.4.1. MCEER, PEER, EERI

8.3.4.2. Others

No reports

8.4. Programs Subcommittee, Simmons

[20 minutes]

For Orlando, two seminars were proposed, one was approved

For Austin meeting – plan on doing 3 submissions, 2 for sure

- *Cert for seismic*
- *Seismic cert for equipment*
 - *Code requirements – Robert*
 - *Equipment manufacture experience – Morby*
 - *Certification requirements – John Juliano*

College of fellows have debate – TC 1.7 frequently co-sponsors debates. Members from 1.7 are on 7.2, a lot of complaints from 7.2 on delegated design. College of fellows debated – delegated design.

Tauby volunteered to speak, Steve Duda will also volunteer. Delegated design is done for many areas

Other topics

- *Tornadoes and Hurricanes – Steve would prefer that over the fellows debate. His firm has designed 911 centers that have to survive tornados, including mechanical systems. Austin is in tornado alley. Chair – Robert Simmons. Scott would be the other speaker*

Submissions need to be in by Monday

8.5. Long range planning, Hooti

8.5.1. Installation inspections

No report

8.5.2. Testing and certification

8.5.3. System approach

8.5.4. Committee position on engineering disciplines appropriate for design of seismic/wind for non-structural components such as HVAC

No reports. Call for new topics - none

8.6. Other committees

[15 minutes]

8.6.1. Seismic Certification, Carlson

Committee Never met

This committee was created to address items that do not have a standard for seismic. There are components out there that don't have a standard for certification. 171 does restraints and cables, there are a lot of gaps

There was a suggestion for boiler flues – nothing to certify today, does not fit in the scope of 171 or AC156 or AHRI 1270 standard. If there was an acceptance criterion, then we could create a standard.

There are a lot of nonstructural items in building that need to survive events. We could create design/test standard that would be used by a certifying body.

Robert propose to develop method of test standard to fill the current holes. This will go under standards subcommittee, Seismic certification committee will go away.

8.6.2. Inspections, Simmons

No update – remove from future agenda

8.6.3. Codes and Specifications, (Selman, Peterman)

No update – remove from future agenda

8.6.4. Wind resistance, (Papavizas)
No update – remove from future agenda

8.6.5. Flood resistance, (Carlson)
No update – remove from future agenda

9. **Liaisons,**

[30 minutes]

9.1.1.1. ASHRAE Handbook Liaison (if present)
Liaison Report

- *HVAC applications for 2023 – needs email addresses for handbook committee and anyone working on the handbook.*
- *Need to complete chapter by 2022. He will provide schedule to members.*

9.1.1.2. NEMA
Phillip Caldwell presented on a new NEMA seismic guide on building code seismic qualification that is under development

Presentation highlights:

- *Trying to take code defined requirement and translate to test requirement*
- *Finished – waiting for process to be published. Does not address products, document that takes equipment and code requirements and points to ASC standards.*
- *ASC7, ASC156 for shake table testing*
- *Basically a tool for code compliance*
- *2019 seismic initiative*

9.1.1.3. ALI, Warick
Anyone wants to submit abstract for short course, same procedure, 2021 winter conference, submitted by this March.

9.1.1.4. ASHRAE TC 2.10 Resilience & Security, Campbell/Peterman
2.10 is writing a handbook chapter on resilience, there is already chapter on security. They are including content on Seismic.

There was discussion on Joint standard with ASCE for envelop design. Need to decide on lead org – which is ASCE. Whoever is lead will follow their standards process. An FYI for process of joint standards

9.1.1.5. ASHRAE TC 2.6 Sound&Vibration, Hooti
Vibration- note by John J. – there is a discrepancy between chapters with isolator models, chapter 48. There is a request to resolve the issue to avoid confusion by user. Volunteers from both committees to look at options and vote to resolve. Don Warrick, Joe Walter, John J. and Eric Klein from 2.6

There was also talk about development of new materials, Possibility of adding new material to chapter 48

9.1.1.6. ASHRAE TC 5.1 Fans, 5.2 Duct, 9.6 Healthcare, 9.7 Educational, 9.9 Mission Critical, 9.4 Justice facilities and security(Fitts)others
No report or no one present for all TCs

9.1.1.7. ASTM E33 (E580 ceilings), Peterman
There is a standard for testing of ceiling suspension products for seismic products. Should be E06

9.1.1.8. ASCE, Simmons/Peterman
On Friday, there will be a TSA meeting. There is a new equation proposal to ASCE722 that would throw out old method for calculating static force applying to equipment. The new equation is more complicated. So many equipment combinations, sometimes values going down, sometimes they go

way up. A lot of research went into it, one last element that is not done – two constants for equipment, ductility & likeliness of resonance matching

This would cause a change for the manual – have put unapproved content in before. Need permission from ASCE

ASC90 Liasion – Parad – First meeting at structures congress on April 5th in St. Louis. Standard for structural cables, appendix E for small cables.

9.1.1.9. ICC, Campbell

No code hearings this year. ASC7 16 was adopted into RES code

9.1.1.10. BSSC, FEMA, NEHRP, Simmons/Campbell

No report

9.1.1.11. ATC, Carlson

No report

9.1.1.12. AHRI, Abbate

AHRI 1310 was published

AHRI 1270 hasn't come back for review yet

9.1.1.13. VISCMA, Warick

Three working groups met this Saturday

- *Bulletins/newsletter*
- *Website – outside group went in and created it, it is now more presentable.*
- *Webinars – 3^d webinar – Intro to seismic restraints*

Last two webinars available on YouTube. Getting approval from states to get PDH approval

9.1.1.14. SMACNA, Deer

No Report

9.1.1.15. MSS, Naik

Nothing new. Still working on SPC127 – long way to go, referencing ASHRAE171

9.1.1.16. Others: ACI, INCE, NCAC, USGS, USGBC, MCEER, PEER, etc.

Add ATC to list for future Agenda

AMCA

- *Early stages of developing standard, rooftop mounted fans for high wind. How to do the testing and how to interrupt the results. Pass/fail.*

Discussion on Wind code

- *Miami-Dade county removed exemption of rooftop equipment from Florida wind code. Trouble for manufactures. A wind test standard would help a lot*
- *Proposal – ASCE49 wind tunnel test standard. Expand scope to equipment*
- *This committee could look at creating a test standard for wind – could be funded by ASHRAE*

Other Comments

- *Proposed that ASHRAE171 be in ASC7 – Andy Coughlin*

10. Operations Subcommittee, Hooti

[15 minutes]

10.1.1.1. Honors and Awards, Steve Duda

No one from 2.7 received an award at this conference

Nominations for May 1

- *Distinguished service*
- *Exceptional service award*
- *Andrew T Boggs service award – 1 per year*
- *Louise and Bill Holiday distinguished fellow award - 1 per year*

10.1.2. Bylaws, Peterman

No report

10.1.3. Membership, Hooti

Review of roster

Jim Carlson still handbook subcommittee chair

*Karl Peterman to roll off
Panos retired and rolled off*

Jim Carlson to roll off

Robert Simmons to become voting

10.1.4. Subcommittee times for next meeting

Will reserve the same subcommittee times, except flooding.

Jim Tauby suggests meeting earlier for flooding. Flooding will start at 8am

11. New business/Old business

[10 minutes]

12. Next meeting date and location - Austin, TX, June 30, 2020

13. Adjourn

Sign-in Sheet

TC 2.7

Main Meeting

Name	email	Company
Michael Morby	michael.morby@spx.com	SPX Cooling Tech.
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Conferences and Expositions Committee Information Items for Technical Committees

2020 Winter Conference, Orlando, Florida
February 1-5, 2020

2020 Winter Conference, Orlando, Florida

Thank you to all the TCs who helped with the review of the technical, conference and extended abstract papers, submitted program proposals and otherwise participated in the development of the conference!

Technical Program Statistics for Orlando:

Paper Sessions

(Conference/Technical Papers combined)

- 25 Paper Sessions

Conference Papers

- 165 conference paper abstracts submitted, 137 approved
- 73 conference papers presented

Technical Papers

- 27 Technical papers received
- 25 Technical papers presented

Seminars

- 123 submitted
- 75 presented

Panels

- 2 submitted
- 2 scheduled

Workshops

- 6 submitted
- 2 scheduled (1 presented in TC Mtg.)

Forums

- 5 submitted
- 1 scheduled

Debates

- 2 submitted
- 2 scheduled

Conferences and Upcoming Deadlines

A full list of ASHRAE conferences and program details is available at <https://www.ashrae.org/conferences>.

Conference	Upcoming Deadline	Conference Site
2020 ASHRAE Annual Conference Austin, TX June 27 – July 1, 2020	Extended Paper abstracts and program proposals due February 10	ashrae.org/Austin
IAQ 2020: Indoor Environmental Quality Performance Approaches , Athens, Greece September 14-16, 2020	Notifications on abstract submissions, February 12	ashrae.org/iaq2020
The Fourth International Conference on Efficient Building Design Beirut, Lebanon October 1-2, 2020	Conference papers due February 15	ashrae.org/beirut
2021 ASHRAE Winter Conference Chicago, Illinois January 23–27, 2021	Conference paper abstracts and technical papers due March 18	ashrae.org/chicago
Ventilation 2021 Toronto, ON Canada August 15-18, 2021	Call for papers to be announced shortly	ashrae.org/ventilation2021

2020 Annual Conference, Austin, Texas

The 2020 ASHRAE Annual Conference technical program is comprised of eight tracks as well as a mini-track, selected to represent areas of focus common among ASHRAE membership. The track focus areas include fundamentals and applications, HVAC&R systems and equipment, research summit, professional development and other specific topics including grid-interactive efficient built environment, multifamily and residential buildings, resilient buildings and communities, zero energy buildings, communities: opportunities and challenges and a building myths mini-track.

“We are living in a constant changing world. ASHRAE members are facing a major evolutionary change in how buildings and energy systems interact,” said Bing Liu, chair of the 2020 Annual Conference. “Instead of individual equipment and system, buildings are becoming integrated, flexible and resilient systems to respond to the climate change challenges. The 2020 ASHRAE Annual Conference aims to address these challenges and feature a strong technical program with a wide range of topics applicable to engineers, architects, designers and professionals.”

Extended abstracts and program proposals are due February 10.

2021 Winter Conference, Chicago, Illinois

The deadline for submitting a conference paper abstract and or technical paper is March 18, 2020. Decisions on conference paper abstracts will be sent by April 22. Conference Papers for accepted abstracts will be due July 8, 2020.

Tracks

Track 1: Fundamentals and Applications

Track 2: HVAC&R Systems and Equipment

Track 3: Refrigeration and Refrigerants

Track 4: Environmental Health Through IEQ

Track 5: Building Performance and Commissioning for Operation and Management

Track 6: Energy Conservation

Track 7: International Design

Track 8: Standards, Guidelines and Codes

Topical Conferences

CIBSE ASHRAE Technical Symposium 2020

Organized by CIBSE and ASHRAE, Glasgow, Scotland, April 16-17, 2020 www.cibse.org/symposium

IAQ 2020: Indoor Environmental Quality Performance Approaches

Co-organized by ASHRAE and AIVC, Athens, Greece, September 14-16, 2020 ashrae.org/iaq2020

Topics

- Health and Well-being
- Performance Metrics
- Interactions between IEQ parameters
- Occupant Behavior
- Smart Sensors and Big Data
- Smart Controls
- Resilience and IEQ
- Ventilation
- Air Tightness
- Thermal Comfort
- Policy and Standards

The Fourth International Conference on Efficient Building Design

Co-organized by ASHRAE, the American University of Beirut, the ASHRAE Lebanese Chapter and the Munib and Angela Masri Institute of Energy and Natural Resources, Beirut, Lebanon, October 1-2, 2020 ashrae.org/beirut

Topics

Sustainable building designs
Energy efficiency standards
Building materials
Indoor air quality systems

HVAC technologies
Solar heating and cooling for built environment
Low and near zero energy buildings

Ventilation 2021

Organized by ASHRAE, Toronto, ON Canada, Aug. 15-18, 2021 ashrae.org/ventilation2021

Topics

- Occupational health, environmental emissions and safety considerations in industrial process ventilation system design and applications
- Innovations in ventilation systems
- Thermal hydraulic modeling, measurement and test and balancing techniques, AI applications, optimization models, data mining
- Industrial HVAC Systems: Innovation and Best Practices
- Best practices and risk evaluations and management in industrial ventilation and air conditioning systems application

Future Annual and Winter Conferences

Annual 2021 – Phoenix, Arizona, June 26 – 30

Winter 2022 – Las Vegas, Nevada, Jan. 29 – Feb. 2

Annual 2022 – Toronto, ON Canada, June 25-29

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