



ASHRAE Technical Committee 5.6

MINUTES (draft)

TC 5.6 Control of Fire and Smoke
Monday June 27, 2022

Virtual Meeting

ATTENDANCE

Voting Members Present	Additional Attendance		
Paul Turnbull	Bill Black	Dan Mason	Gerald Kettler
Yoon Koon	Raj Kapoor	Dave Branson	Greg Sanchez
Valentina Nedelcu	Larry Felker	Duane Smith	Kim Clawson
Jim Buckley	William Farrell	Eric DeSplinter	Matt Davy
	Cheng Chang	Eric Li	Mike Knipple
	Sankaranand Ramasamy	Tarek Omar	Amir Jokar
	Scott Hammond	Thomas Lyle	Jonathan Hodges
	Steven Rogers	Kevin Marple	
Voting Members Absent			
William Web (NQV)			
Peter McDonnell			

1. IDENTIFICATION OF VOTING MEMBERS

Voting members in attendance are as follows: Paul Turnbull, Yoon Koo, James Buckley, Valentina Nedelcu, 4 of 6 voting members were in attendance.

2. CHAIRMAN'S REMARKS

Welcome

- The Chair expressed thanks to all for flexibility in having this meeting online even though conference is in-person.
- During the TC Chair meeting, many TCs had comments about issues with hybrid meetings not working, and the need for better equipment (mics, projectors). ASHRAE is looking into it, but nothing committed.

Code of Ethics

- "we shall avoid all real or perceived conflicts of interest."
 - Recent CHANGES to the TC MOP require BALANCE for the voting

membership. This removes the appearance of bias and conflict of interest.

- No single stakeholder interest category shall constitute a majority of the Voting Members of a Committee.
- Stakeholder interest category, such as users, contractors, product manufacturers, academics, consulting engineers, government agencies, independent sales representatives, trade organizations and research organizations.
- Chair, vice-chair, all voting members must be ASHRAE members.
- TC5.6 is currently balanced, with 3 consulting engineers, 2 manufacturers, and 1 research organization. All are ASHRAE members.

3. APPROVAL OF MINUTES FROM JUNE 2020

The minutes of the TC 5.6 Meeting from January 2022 were approved as submitted. Approved For-3, Against-0, Abstain-0, Absent-2

4. RESEARCH PROJECT REPORT.

RP-1644 Smoke Control in Long Atria. Jensen Hughes

Objectives:

Use CFD simulations that include heat transfer evaluations of long atria with different aspect ratios to determine the horizontal distance at which the smoke layer loses buoyancy and begins to descend from the ceiling. Develop guidelines for maximum size of smoke zones or maximum horizontal distances for smoke flow before a detailed evaluation including heat transfer is required.

- Jonathan Hodges provided an update on the project, including additional details in response to previous PMS questions. Questions from meeting attendees were also addressed.
- Jensen Hughes is working on the final report, which is expected to be submitted to the PMS by the end of July.
- The technical paper is expected to be submitted to the PMS for review by the end of September.

5. TAC Section 5 Update.

Kevin Marple, Section 5 Head

Kevin Marple was in attendance but had to leave before this point in the meeting. Kevin submitted a written report including the following:

- Reminding the Chair to submit the TC Activity Form, and
- Reporting that ASHRAE split the Manual of Procedures (MOP) so there is now one document for TCs/TGs/TRGs, and another for MTGs.

There are minimal changes for TCs

There are larger changes for MTGs, including a list of expectations and timelines

for completion

6. Subcommittee Reports:

• **Research** – Matt Davy

No other active research projects for TC5.6.

Matt attended research chair training where the following items were brought up:

- TCs should remember to add the research liaison to all PMS meetings.
- PES training is now available online

TC members were asked to suggest ideas for research needs

- Raj Kapoor: Is wall mounted exhaust fan possible for large space
- Larry Felker: Study of damper failure rates in smoke control systems

Members who submitted ideas were asked to submit a short description of the research needed to Matt. Other suggestions are also welcome.

• **Program** – Larry Felker.

Larry will attend chair training Tuesday

TC5.6 does not have any programs for Toronto.

- Larry has 3 presentations lined up and will submit a seminar for Atlanta.
- Members are asked to submit ideas for future presentation topics to Larry.

• **Handbook** – John Klote

• John was unable to attend. He submitted the following report:

- The TC5.6 Handbook Chapter was approved at the January 2022 meeting.
- The chapter will be included in the ASHRAE 2023 HVAC Handbook.

• **Standards** – Jim Buckley

- The only Standards Committee activity of interest to TC5.6 is Guideline 1.5.
 - The Guideline 1.5 subcommittee has held 2 meetings. The subcommittee is reviewing the document to determine whether the existing material and appendix references are still appropriate. There were only minor corrections to the chapters that have been reviewed so far. The review is ongoing, with another meeting being held during the June conference in Toronto, where discussions of a couple more chapters will take place.

• **Membership** – Larry Felker

- The roster has been cleaned up by contacting everyone on the list and removing those who were no longer interested or did not respond to multiple requests. The roster was pared down from 120 members to 79.
- Attendees were reminded that those interested in joining TC5.6 can add themselves as a Provisional Corresponding Member by filling out the request form on the ASHRAE website. The link can be found under Communities / Technical Committees. A direct link is:

<https://www.ashrae.org/communities/committees/technical-committees>

- **TC 5.6 Web Site** – Duane Smith
 - The website is up to date with agenda and minutes
 - Duane asked for suggestions about other content they would like to see on the website. Members should contact Duane with suggestions.
- **Handbook of Smoke Control Engineering** – John Klote.
 - John was unable to attend. He submitted the following report:
 - ASHRAE has been a little delayed in editing the 2nd Edition of the Handbook of Smoke Control Engineering.
 - ASHRAE staff has contracted with a professional editor to do the job.
 - ASHRAE staff says the handbook will be published this year.
- **ASHRAE Smoke Control Courses** – John Klote
No Report

7. Inter-Society Liaison Reports:

- CIBSE (Chartered Institute of Building Services Engineers) – Liaison needed
No report
- NFPA 80 & 105 (Standard for Fire Doors and Fire Windows) – Duane Smith
 - Current edition of NFPA80 is 2022. The next edition will be 2025.
 - Committee held pre-first draft mtg on April 27, 2022
 - Public input closed June 1, 2022
 - Next meeting is scheduled for October 4, 2022, where the 2025 first draft will be developed.
- NFPA 90A (Air Conditioning and Ventilating Systems) – Jim Buckley
 - No report
 - Jim is no longer a member of this committee. Volunteers for a new liaison are requested.
- NFPA 92 (Smoke Management) – Paul Turnbull
 - Committee met May 11, 2022 to address 21 public comments. Most comments were not major.
 - Two task groups were formed to look into more involved issues.
 - One task group will review the requirement in 6.4.1 and 6.4.8.5 for smoke control systems to be listed per UL864 category UUKL, to determine whether generalized language is possible - to complying with the NFPA mandate to support global standardization – while still retaining the technical requirements associated with the UUKL listing, including the weekly self-test.
 - The other task group will review the visibility distance requirements in

section M.8 for consistency with known visibility proportionalities.

- The next meeting is not scheduled, but will not happen until next year.

- UL and AMCA – Dane Carey – Aaron Gunzner
- A) UL met with the AMCA Damper Engineering Committee on June 16, 2022. The following topics were discussed:
 - a) UL’s organizational Chart in regards to 3 of UL’s long time fire resistive employees retiring.
 - b) Large discussion in regards to testing Dynamic Ceiling Radiation Dampers. Currently the specific test procedure and methods are not in UL 555C nor UL 263. The committee wanted UL’s thoughts on testing. The AMCA Damper Engineering Committee is proposing a change to UL’s standards UL 555C and UL 263 in order to get specific documentation into them. Also specific changes to AMCA’s Standard 500-D will need to be made in order to properly do the dynamic operations testing.
 - c) AMCA inquired with UL about using QR codes on Life Safety Dampers that pointed to specific installation instructions for dampers in lieu of providing a hard copy with each shipping container. Changes will need to be made to the UL Standards and UL see’s this as something progressing in the near future. UL has an Enhanced Mark currently that will allow a QR code to be placed on the damper beside the UL marking.
 - d) UL currently produces a publication on recent regulatory issues. You have to sign up at UL to receive notifications on it.
 - e) A discussion regarding remote testing applications and products on life safety dampers in regards to NFPA 80 and 105.
 - f) A discussion in regards to the unification of the IBC codes in the US and the NBC codes of Canada. Also what changes have been done to the NBC in regards to terminology for fire dampers and Smoke dampers as currently stated in the NBC codes.
- B) In regards to AMCA alone:
 - a) AMCA Publication 503, Application Manual for Life Safety Dampers is being revised.
 - b) AMCA Publication 502, Application Manual for Air Control Dampers is being revised.
 - c) Linkage Connected Economizer Dampers are being separated in AMCA’s Certification Program from standard air control dampers.
 - d) A Casing Leakage program has been started to determine the amount of external system leakage is typical on life safety dampers.

- **SFPE** –Dave Branson
Nothing to report
- **SMACNA** – William Farrell
Nothing to report

Delaine Deer is no longer with SMACNA. William Farrell volunteered to be the new liaison.

8. Old Business

9. New Business

- If anyone who is currently a corresponding member would like to be considered for a voting member position to communicate to the chair.
- Final determination will be made after balance is considered.
- Anyone attending today that is not a member can go to the ASHRAE website and instantly add yourself as a Provisional member to be included in correspondence related to TC5.6.

10. Adjournment

Meeting adjourned at 6:59 PM