



**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND
AIR CONDITIONING ENGINEERS, INC.
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TC/TG/TRG MINUTES COVER SHEET

TC/TG/TRG No. TC5.6

DATE: January 28, 2013

TC/TG/TRG/TITLE: Control of Fire and Smoke

LOCATION: Dallas, TX

DATE OF MEETING: January 28, 2013

DRAFT

VOTING MEMBERS PRESENT	YEAR APPT' Until	VOTING MEMBERS ABSENT	YEAR APPT' D	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Ahmed Kashef (Vice- Chair)	2014			Valentina Nedelcu, CM
John Clark	2013			Paul Turnbull, CM
		Matthew Davy	2015	Tim Orris, CM
Gerald Kettler	2014			Jeffrey Tubbs, CM
Josiah Wiley	2016			Dane Carey, CM
				Ed Koop (CM)
Ray Sinclair	2014			Jim Buckley, CM
Peter McDonnell _Secretary	2015			Bob Sibilski, CM
William Webb (NQ)	2014	George Hadjisophocleous	2014	Gary Andis CM
John Klote (NQ)	2014	Kai Kang (Chair)	2013	Dan Rau, CM
				Curtis Peters, G
				Kevin Chang, CM
David John	2015			Juan Li, G
Bill Black	2015			Cyus Faris, G
				Michael Knipple, G
				Julian Rochester, G
				Greg Bradshaw, G
				Byron Hagan, G
				Reinhard Seidl, G

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ASHRAE LIAISON	
TAC Section Head	Giustino Mastro
TAC Chair	Donald Brundage
Manager of Standards	Claire Ramspeck (Staff)
Manager of Research & Technical Services	Mike Vaughn (Staff)
Committee Liaisons	
ALI/PDC	Florentino J Mendez
Chapter Tech Transfer	Stephanie Reiniche
HB Applications	Charles Gullledge, III
Program Liaison	Riyaz Papar
RAC Research Liaison	Danny Castellan
Standard Liaison	Bodh Subherwal
Special Pubs	Stanley Mumma

These draft minutes have not been approved and are not the official, approved record until approved by this committee.

MINUTES
ASHRAE TC 5.6
CONTROL OF FIRE AND SMOKE
Dallas, TX
Sheraton Hotel (San Antonio BallRoom B)
Monday, January 28, 2013 – 4:15 to 6:30 PM

Prepared by: Peter McDonnell, PE
McClure Engineering Associates

1. Introductions

The Committee Vice Chair Ahmed Kashef called the meeting to order at 4:25 pm.

2. Identification of Voting Members

29 members and guests were present at the meeting. Voting members were identified. 10 voting members were present. 3 voting members were absent.

3. Chairman's Remarks

Ahmed welcomed members and guests and briefed attendees on the Section 5 meeting (please see attached).

Looking for nominations for 2013 Hightower Award – due 9/1/12. It is important to limit the nomination form to 100 words.

It is important for each member to keep their ASHRAE Bio up to date. There are training opportunities for members of TC's, please let Ahmed know if you would like to take one of these courses.

Ahmed also highlighted that all of the committee meetings are open to all that are interested, with just an exception for Contract Award meetings that are closed (which we will have today).

ASHRAE is looking for member feedback on Ethics via the ASHRAE website.

There are templates for (powerpoint) slides for TC's to use at local chapter meeting presentations.

Committee rosters are due tomorrow for 2014 Society year (starts July 1), those that are interested in membership (voting & corresponding levels) should let Ahmed know today. There is a need to balance the membership of each TC to have a balance of contractors, supplier/manufacturers, designers and owner/operators. ASHRAE will support teleconferences for TC meetings including sub-committees.

ASHRAE is forming Multi-Diversity Task Groups (MDTG). More on these groups coming.

4. Approval of Minutes from June 25, 2012 Meeting (San Antonio, TX)

The committee voted to accept the San Antonio meeting minutes of June 25, 2012 (for approval: 10; against: 0; abstention: 0) with correction to the footer.

5. Subcommittee Reports

a) Research – Paul Turnbull

Active Research Projects:

- No active projects at this time.

TRP-1447: (Performance of Pressurized Stairwells with Open Doors)

- Bids were received.
- Action was taken in closed session by voting members to receive PSC. All voting members (10) present attended the closed session.

TRP-1600 Make-up Air Velocity for Smoke Control in Atria (#2)

- Action was taken in closed session by voting members. All voting members (10) present attended the closed session.

New RTAR 1644 (Smoke Control in Long Atria):

- RTAR was reviewed by the RAC and is being returned with comments requesting further revision and clarification. . Main comments:
 - Lacks details about deliverables
 - Please address budget concerns
 - Unclear how data would be used by ASHRAE
 - Need cost estimate from committee members familiar with this type work before it can be submitted.
 - Volunteers?
 - A response to the RAC comments will be compiled once TRP-1447 is submitted.

Ideas for future RTARs

- Plugholing issues in atrium smoke management using exhaust inlets located on the atrium walls – current practice assume conservative approach if using vents on the wall rather than on the ceiling – Gary Lougheed developed a draft RTAR for study of sidewall vents on plugholing, but it has not been distributed.
 - Includes full-scale study to validate CFD model behavior in close proximity to sidewall vents, and
 - CFD study to determine appropriate factor to be used in existing NFPA92 equation.
 - Need cost estimate from committee members familiar with this type work before it can be submitted.
 - Volunteers?
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- Smoke purging from stair and shafts – by John Klote
- Comparisons of existing software tools to existing experimental data

New ideas for research topics?

- Ways to use results of modeling research – move toward open source
- Discussion of past research project # 1328 “Algorithm for Smoke Modeling in Large Multi-Compartment Buildings”. How can this algorithm be used for modeling multiple zone including the energy component (that COMTAM currently does not)? Bill Webb stated that those interested in this type of computer software could further develop the ‘abstract’ for this ‘project’. Paul Turnbull will checked with ASHRAE to find out what the availability of this information to general public. ASHRAE has concerns with providing the algorithm (for free) to an entity that would profit from the use.

b) Program – Valentina Nedelcu

Valentina updated the TC on the Conference schedules for (September 26 deadline for submission of technical papers and abstracts for conference papers). For San Antonio, it is “Leading the way to better buildings”.

- **Future meetings schedule updates:**

Denver June 22-26, 2013 (Integrated Design Theme)

Website open www.ashrae.org/Denver

Schedules for Denver updated

New-York, January 18-22, 2014 (Tall Building Theme)

Tentative: Conference Paper Abstracts and Full Technical Papers due April 1,2013

CEC(Conferences and Expositions Committee) announcements

1. Dallas conference paper reviews will be handled by the Track Chair.

Some of the TC members may be asked to assist with reviews.

2. Program submitted/accepted statistics numbers were presented.

3. Speakers rating system was implemented at Chicago Conference. As a result 25 letters were sent for below 3.5 rating.

4. First annual Research Mini-Conference and Integrated Project Delivery(IPD) will be held in Denver. Papers and seminars on ongoing or recently completed research are being solicited. Papers describing ASHRAE related research are encouraged and up to 25% of the Denver program will be allocated to this effort.

5. Because of increasing requirements for PDH hours on Ethics, a session on ethics and legal issues will be offered at every winter meeting.

During the Sub-Committee meeting each of the scheduled/proposed TC5.6 program events was re-visited in terms of: event type, proposed meeting date, topics, chair and speaker availability.

• Future Proposed Programs

➤ Dallas Meeting- January 26-30, 2013

<http://www.ashrae.org/dallas/>

Conference Papers submitted for review are due early July 2012

Seminar and forum session proposals are due early August 2012.

Technical Papers final reviews August 13

Final Technical Papers due Sept 5

Seminar – Alternative Smoke Detection Systems for Smoke Control.

Paul Turnbull as moderator and papers by George Hadjisophocleous, Ahmed Kashef and Matthew Davy. The seminar will be submitted if the speakers will confirm availability. The seminar was originally submitted for the San Antonio Conference.

Seminar – Special issues related to smoke control in large volume spaces.

Jeff Tubbs as moderator and papers by Ray Sinclair and others to be determined.

Peter McDonnell had attempted contacting the Mechanical Contractor for the Dallas Stadium.

Case studies.

Short timeline as the deadline is August.

➤ **Denver, June 26-30, 2013**

Seminar - Guideline 1.5 Commissioning Smoke Control Systems. (Smoke Control Technical Requirements for the Commissioning Process).

Depending on the publishing date of the document.

More presentation topics to be developed. Chair to be assigned.

Seminar- Design Fire for smoke control. Possible papers by NRC and FPRF.

Seminar- Natural Smoke Control Strategies. Ray Sinclair

Technical Session on Smoke Control Modeling- applications, validation, development (possible papers by Jarrod Altson, Leon Wang, Bill Black, Ahmed Kashef). Chair to be assigned

➤ **New York, Jan 18-22, 2014**

Seminar-Smoke Control in correctional facilities.

Collaboration with TG9.JF, Justice Facilities

Possible paper by Peter McDonnell.

➤ **Seattle, June 2014**

To be determined

Future program topics.

Post Fire Situation, Purge Smoke. (The topic was proposed by John Clarke)

Zone Smoke Control required in hospitals. May be time to bring this back.

c) Membership – John Clark

John noted that the committee needs a balance of membership and would like invite anyone interested in the committee activity. For those interested in becoming either a corresponding member or a voting member, please provide business card indicating preference as corresponding member or voting member and ASHRAE membership info. The committee is looking for representation from design engineers. John suggests guests to start as corresponding member, as voting member needs commitment for a 4-year cycle. This new rooster is due to ASHRAE tomorrow.

d) Handbook – Jeff Tubbs

A draft of the Handbook Chapter by John Klote will be emailed to members. Will need comments by 5/1/13.

For the next issuance, Jeff had suggested that application information be added to assist the designer community. Potential building types such as:

Atrium Spaces

Malls

Stadium (Smoke Protected Facilities)

Healthcare

Detention / Correctional Facilities

High-rise (Residential / Office)

Combustible Storage

Underground Buildings

Stages

Performance-Based Approaches

Jeff will work with several members to work on more specifics to this list. This will reflect the IBC and NFPA 92 concepts, however it will not be presented as Code specific. This wants to be a general overview document to highlight items that should be considered in any design.

John Klote noted that he believes that updates to the chapter are needed. This will help ensure that the Handbook chapter and the New Smoke Control Book are coordinated.

e) Guideline 1.5 – Paul Turnbull

Guideline 1.5 (Commissioning Process for Smoke Control Systems) has been published. Discussion of NFPA Standard 4 and how does ASHRAE get NFPA to consider GP1.5. TC to create a sub-committee to study this issue. Secretary to request meeting time for this in Denver.

f) Standards – No report, new liaison to be Ed Koop.

g) TC5.6 Web Site – Josiah Wiley

The committee's website address is: <http://tc56.ashraetcs.org>.

The TC website is current.

6. Intra-Society Liaison Reports:

- a) New Smoke Management Book – Bill Webb reported that the book has been well received.
- b) TC1.4 (Control Theory and Application) – No report, meeting is tomorrow. Josiah Wiley
- c) TC5.2 (Duct Design) - The Committee will meet on Tuesday. Ed Koop to report at Denver.
- d) TC5.9 (Enclosed Vehicular Facilities) – The Committee is looking for additional co-sponsor for RTAR-1690. Klote made a motion to express interest to Co-sponsor this RTAR, seconded by Sinclair. Approved 10 yes, 0 no or abstain (Ahmed Kashef to report to TC at their meeting tomorrow).
- e) TC5.10 (Kitchen Ventilation) – John Clark
Special Inspector is required for Smoke Control in Kitchen Grease systems.
- f) TC7.9 (Building Commissioning) – Jerry Kettler
ASHRAE Commissioning Standard 2.2 is out for public review. GPC 0.2 is out for first pulic review.
- g) TC9.1 (Large Building Air Conditioning Systems) – No report.
- h) TC9.4 (Justice Facilities) – Peter McDonnell New TC is looking for members.
- i) TC9.8 (Large Building Air Conditioning Applications) – need new liaison. John Klote noted that TC9.8 would like input on revised chapter in Handbook. John will coordinate with Frank Mills (TC9.8) by sending s draft of our chapter.
- j) TC9.10 (Laboratory Systems) – No Report, need new liaison.
- k) TC9.12 (Tall Buildings) – The Committee will meet on Tuesday.

7. Inter-Society Liaison Reports:

- a) CIBSE (Chartered Institute of Building Services Engineers) – No Report, need new liaison
- b) NFPA 80 (Standard for Fire Doors and Fire Windows) – Ed Koop reported that standard was updated 3/25/11.
- c) NFPA 90A (Air Conditioning and Ventilating Systems) – Jim Buckley. Standard has been approved (starting a new cycle).
- d) NFPA 92 (Smoke Management) – Paul Turnbull
The two standards are now one standard "NFPA 92". It is now available as 2012 document. The Building Codes will need to be updated to reflect this. This can be raised by any individual to

IBC. (IFC 2012 incorporates these requirements). NFPA is discussing adding vents to this standard.

e) UL – Tim Orris

No report.

f) AMCA – Tim Orris

The AMCA Damper Engineering Committee will be meeting with UL Staff to discuss a list of service issues with UL Staff at a face to face meeting in late February. The members have met with UL Staff to discuss the UL long term holding requirement (actuator testing) and also met with Intertek regarding ceiling damper testing in various ceiling designs. AMCA Standard 500-D was revised in 2012 to include a test method for damper thermal efficiency.

g) SFPE – Jeff Tubbs

Guideline for substantiating models for their intended use. The new handbook is currently being developed to make it more user friendly and basis for PE Fire Protection exam. WPI is working on a guideline for definition of design fire sizes.

8. Old Business

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9. New Business

10. Adjournment

The meeting was adjourned at 7:05 pm.