

ASHRAE TC 4.3
Ventilation Requirements & Infiltration
Draft Agenda
Fall 2023 Interim Meeting (Virtual)

SIGN IN SHEET

<https://tinyurl.com/5abf46xh>

Monday September 18, 2023, 1.5 hours, starting at 08:30 AM Pacific (US/Can) / 11:30 AM Eastern (US/Can) / 9:00 PM India

Email TC0403@ashrae.net for link

1. Call to order

McNulty

2. Review Scope

TC 4.3 is concerned with ventilation requirements and the analysis of infiltration, airflow around buildings, exhaust, and the re-entry of exhaust, including their interactions with indoor air quality and energy calculations for buildings and HVAC system design and operation performance and energy consumption. <https://tc0403.ashraetcs.org/>

3. ASHRAE Code of Ethics Commitments

McNulty

Code of Ethics Commitment: *In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and we shall avoid all real or perceived conflicts of interests. <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>*

4. Introductions (10')

All

a. Determination of a quorum

Parker

VOTING MEMBERS FOR THIS MEETING (Need (4) or ½+1 for a Quorum)

	Name	Position	Company	Roll Off (June 30)	Present?
1	Meghan McNulty	Chair	Servidyne	2026	
2	Isaac Simpson	Vice Chair	DMG North	2024	
3	Iain Walker	Member	Lawrence Berkeley Natl Lab	2024	
4	Anthony Abate	Member	Clean Air Group	2025	
5	Duncan Philips	Member	RWDI	2025	
6	Marianne Touchie	Member	University of Toronto	2025	
Non-Voting Officers					
	Nitin Naik	Programs	Dewpoint		
	Jason Urso	Membership	Tighe & Bond		
	Ryan Parker	Secretary/ Co-webmaster	RWDI		
	Neetha Vasan	Handbook	RWDI		
	Jordan Clark	Research	Ohio State University		

Steven Emmerich	Standards	NIST		
Bryan Morris	Co-Webmaster	Sellen		
Hossam Abdelkader	Honors & Awards	Delta for Construction and Manufacturing (DCM)		

b. Round of introductions All

5. Agenda additions All

6. Approval of minutes from 2023 Annual Meeting McNulty

7. Chair's Report (5') McNulty

a. Chair's Goals

i. Welcome! Getting to know TC 4.3:

1. Dinner at Winter Meeting

2. Poll for specialties/interests – Jason (membership), Bryan (webmaster), Tony Abate, Martin Stangl

ii. Interim meetings between Annual & Winter Conferences

iii. Access to Basecamp – request to be added

iv. Website & FAQ updates

b. Announcements

i. [ASHRAE Simplified Rules of Order](#)

ii. Review TC Scope, Continue/Merge/Dissolve – by Winter Meeting

8. Membership/Roster (5') McNulty/Urso

a. Regular attendance is expected, active participation encouraged.

i. Attendance record corrections

b. Guests, consider joining as a Provisional Corresponding Member (PCM). This is the only way to officially join TC 4.3: https://eweb.ashrae.org/eweb/TS_ProvisionalSignup.html

9. Subcommittee reports

a. Programs (15') Naik

i. Previous Programs – Tampa Annual Conference - none

ii. Current Programs – 4 submissions planned for Chicago

1. Health Implications of Contaminant Transportation in Residential Buildings, seminar, Cara Lozinsky and Nuria Casquero-Modrego

2. Insights of Residential Kitchen Ventilation, conference paper session, Kishor Khankari

3. Evaluating Natural Ventilation – Mason, Berquist, Philips

- iii. Future Programs / New Ideas – “3 Strikes” rule- if idea has been on docket for three meetings with no forward movement, will be removed

City	Title	Type	Chair/Speakers
Chicago	Health Implications of Contaminant Transportation in Residential Buildings	Seminar	Co-Chairs and speakers Núria Casquero-Modrego & Cara Lozinsky; Benjamin Jones; Jacob Bueno de Mesquita
Chicago	Insights of Residential Kitchen Ventilation	Paper Session	Kishor Khankari, Iain Walker, Randy Cooper
Chicago	Evaluating Natural Ventilation	Seminar	Matt Mason (Chair): Justin Berquist, James Lo, Duncan Philips, Will Lim
Chicago	Where’s My Air Been (External exhaust flow – may need clearer title)	Seminar	Greg Gross / Martin Stangl / Ryan Parker
Chicago	Burning Questions Around Wildfires and Ventilation/IAQ	Seminar	Isaac Simpson / Steve Emmerich. TC 7.3 co-sponsor, possibly GPC44P co-sponsor (will be published by then)
Chicago (Resubmit)	TC4.10: Modeling airflow around buildings and the impact on indoor conditions driving toward increasing building resiliency		TC4.10 – is co-sponsoring and it was submitted. Rejected for Tampa, resubmitting for Chicago.
	“How To” for 62.1 or 62.2	Workshop	[when new version / substantial change]
	Standard 241 Updates		Steve Emmerich / Iain Walker / Matt Mason

iv. Deadlines & Tracks for Chicago 2024 Winter Conference

Winter Chicago – January 20-24, 2024

Conference Chair : Suzanne LeViseur, (sleviseur@haddadeng.com)

- o **Fundamentals and Applications**
 - o Craig Bradshaw - craig.bradshaw@okstate.edu
- o **HVAC&R Systems & Equipment**
 - o Ng Yong Kong – nyk@nyk.com.my
- o **Refrigeration & Refrigerants**
 - o Atilla Biyikoglu – abiyik@gazi.edu.tr
- o **Decarbonization and Climate Change**
 - o Som S Shrestha - shresthass@ornl.gov
- o **Hydronic Systems**
 - o Joe Chow – joe.ashrae@gmail.com
- o **Ventilation, Indoor Air Quality and Air Distribution Systems**
 - o Ahmed Abdel-Salam – ahmed.abdel-salam@usask.ca
- o **Comfort, Indoor Environmental Quality and Energy Efficiency**
 - o Kristen Cetin – cetinkri@msu.edu
- o **HVAC&R Controls**
 - o Alekhya Kaianathbhatta – alekhya_k@rogers.com
- o **Project Delivery Methods**
 - o Ehab Mamdouh Abu Taleb – ehab.mamdouh@ipeceg.net

Wednesday, August 2, 2023 | Debate, Panel, Seminar, Forum, Workshop, and Debate Proposals Due

Monday, October 16, 2023 | Full Conference Papers Due; Request for Conference Paper Sessions Due

Wednesday, November 8, 2023 | Conference Paper Accept/Revise/Reject Notifications

Friday, November 24, 2023 | Revised Conference Papers Due

Wednesday, December 6, 2023 | Conference Paper Final Accept/Reject Notifications

v. Deadlines & Tracks for Indianapolis 2025 Annual Conference
(tbd)

b. Research (20')

Clark

i. Active Research Projects (RP)

1. RP1835: Characterization of Induced Flow Fans

ii. Work Statements (WS)

1. (1950-RTAR), "Effect of residential exhaust terminations on jet mechanics and resulting required intake separation"

iii. Research Topic Acceptance Request (RTAR)

1. Updating garage ventilation rates for current populations of vehicles (electric cars) *2 meetings
2. ERVs and Pressurization – Phillips
3. Ventilation Effectiveness – Godbout
4. TC 5.11 co-sponsorship: minimum humidity
5. PTAR (Publication): Guide for successful simulation of outdoor airflow around the built environment *2 meetings

iv. On Hold / Inactive

v. New Ideas

Name	Champions	Status/Actions
RTAR/PTAR Combo: Infiltration vs. Pressurization impact with ERVs	Phillips and Wray to write PTAR	Sub Committee: "Developing guidance for ventilation design related to high buildings and pressurization." Possible PTAR instead? **2 meetings
Enhance the current Stack Height Reduction Factor Methodology for Plume Dispersion Calculations for 1- 2.5 x screen height	Carter/Parker	**2 meetings Idea from Parker, will consider writing
Potential work following ETF transition	McNulty	Sample survey of existing building vent performance i.e. BASE study Crowd-sourced database? CO2 or CO levels
Adjustment of rates for density of air w/ altitude-do emissions change with altitude? How much do resulting rates change? Include perception changes	Phillips-framework, Taylor review	Phillips to provide framework and Taylor to review

Better ventilation effectiveness values for heating. Provide additional guidance or simplified equation.	Frank Godbout	Godbout to write RTAR, has white paper. Clark to send RTAR writing guide
Submitted via email: Exploring the Impact of IAQ on Human Physiological Signals	Joonho Choi	Choi to write RTAR

vi. Deadlines

--- 5'-10' Break (est. 9:15 am Pacific / 12:15 pm Eastern / 9:45 pm India) ---

c. Handbook (10')

Vasan

i. Chapter Status

Volume	Chapter	Lead	Status
2025 Fundamentals	Chapter 16 Ventilation and Infiltration	Marianne Touchie, Cara Lozinsky, Justin Berquist	Feedback requested by Sept 15
2025 Fundamentals	Chapter 24 Airflow Around Buildings	Ted Stathopoulos	Feedback requested by Sept 15
2027 Applications	Chapter 45 Building Air Intake and Exhaust Design	Ryan Parker	To be published in June

ii. Revision information

1. Access files, for revision, via <https://authoring.ashrae.org/>
2. **Chapter reviews:** If you have colleagues who are practicing in or otherwise interested in any of our topics, please ask them to review our as-published chapters. They can submit their reviews via http://xp20.ashrae.org/secure/handbook/chapter_review/
3. Website for our revisers: <https://www.ashrae.org/technical-resources/ashraehandbook/ashrae-handbook-central>

iii. Deadlines

d. Standards (5')

Emmerich

- 62.1 Ventilation and Acceptable Indoor Air Quality
- 62.2 Ventilation and Acceptable IAQ in Low-Rise Res Bldgs
- 161 Air Quality Within Commercial Aircraft
- Other Standards of interest
 1. 241 Control of Infectious Aerosols
 2. 90.1 Energy
 3. 170 Ventilation of Healthcare Facilities

e. Website/Basecamp (5')

Parker/Morris

- i. Website & FAQ updates

f. **Honors & Awards (5')**

Abdelkader

- i. December 1 deadline

10. Old Business (5')

- i. Terminology issue: RP-1833 conflicting definitions (Rock)
- ii. Figure of "Type H Exhaust Stack Drain" in Ch 46, Fig 2.

11. New Business (5')

12. Next Meeting

- a. Subcommittee meetings prior to Winter Conference
- b. 2024 Winter Conference: January 20-24, Chicago, IL
<https://www.ashrae.org/conferences/2024-winter-conference-chicago>
Full TC meeting 5p-7p Central Time (US/Can) on Monday January 22, Research SC 1 hour before. Hybrid meetings. Group dinner to follow TC meeting.
- c. ASHRAE Annual and Winter Conference dates

Future Winter Conferences	Future AHR Expos	Future Annual Conferences
Jan. 20-24, 2024 – Chicago, IL	Jan. 22-24, 2024 – Chicago, IL	June 22-26, 2024 – Indianapolis, IN
Feb. 8-12, 2025 – Orlando, FL	Feb. 10-12, 2025 – Orlando, FL	June 21-25, 2025 – Phoenix, AZ
Jan. 31-Feb. 4, 2026 – Las Vegas, NV	Feb. 2-4, 2026 – Las Vegas, NV	June 27-July 1, 2026 – Austin, TX
	AHR Mexico Sep. 19-21, 2023 – Mexico City	

13. Adjourn