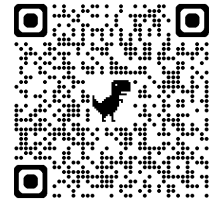


ASHRAE TC 5.1 Fans
Winter 2026 Meeting Draft Minutes

Tuesday 2/2/2026, 4:30 - 6:30 PM PST
[Meeting Link](#)



[Sign-In Sheet](#)

1) **Call to order** **Mark VanderKooy**

2) **Review Scope** **Mark VanderKooy**

TC 5.1 is concerned with the selection, application and testing-for-rating of fans, including recommended installation practices and field test procedures.

3) **ASHRAE Value Statement** **Mark VanderKooy**

ASHRAE Value Statement – *In 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 shall avoid all real or perceived conflicts of interest. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We celebrate diverse and inclusive communities, understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and the communities our Society serves. We respect and welcome all.*

[Code of Ethics](#) – Please review prior to meeting

[Core Values](#) - Please review prior to meeting

[Diversity Statement](#) – Please review prior to meeting

4) **Introductions** **All**

a) Determination of a quorum

Nazme Mohsina

VOTING MEMBERS FOR THIS MEETING (Need (6) or ½+1 for a Quorum)

TC 5.1 Voting Members
Mark VanderKooy – Chair
Kevin Gebke – Vice Chair
Nazme Mohsina – Secretary
Devendra Kulkarni – Research SC Chair and Webmaster
Dr Rich Stauter – Program SC Chair
Jamie Yeh
Matthew Kauffmann
Joseph Fiegen
Eric Tinglof
Greg Wagner
Dr Gang Wang

Non-Voting Subcommittee Chairs
Z. Patrick Chinoda – Handbook SC Chair
Nathan Fetting – Standards SC Chair

5) **Agenda additions** **All**

6) **Approval of the Previous Meeting Minutes** **Mark VanderKooy**

a) The last meeting of this committee was held on June 23, 2025, as a hybrid meeting. Draft meeting minutes were posted on the TC 5.1 website and Basecamp. [Draft meeting minutes](#)

Jaime Yeh motioned to approve the previous meeting minutes, and Greg Wagner seconded. The motion passed unanimously.

a) Announcements and Highlights from TC Chair Breakfast Meeting

Mark VanderKooy, the Chair, provided the update.

Administrative Updates

- The discussion focused on administrative matters, including roster and activity updates.
- The Activity Form will be updated and submitted by tomorrow evening.
- The committee discussed whether to continue its work as Technical Committee (TC) and agreed to do so.

Sub-Committee Meetings

- ASHRAE will no longer host in-person sub-committee meetings.
- Holding virtual sub-committee meetings prior to the main meeting was discussed as a possible alternative.
 - Three committee members support having in-person subcommittee meetings. Members are encouraged to provide feedback directly to ASHRAE.
- Hybrid meetings were discussed; however, there were significant concerns raised. The committee will hold a virtual subcommittee meeting prior to the Austin conference.

b) Update on roster errors

Roster Inaccuracies

- The current ASHRAE roster for this committee is not accurate and the chair has emailed ASHRAE the required updates and requested that the roster be updated.

Roster Updates

- Annual roster updates are due in March and will take effect on 7/1/2026.
- Past attendance lists will be reviewed to identify inactive members and remove them as appropriate.
- The terms of three current voting members are ending on 7/1/2026. Current active members interested in becoming voting members should contact the chair.
- The maximum number of voting members is 18.
- Provisional corresponding members may serve for one year. Members who are not active during that period will be dropped.

8) Liaison Reports (as they arrive)

Liaisons

a) Research Liaison

Doug Scott

No report.

b) Section 5 Head

Farzin Rad

9) Subcommittee reports

a) Programs

Dr. Rich Stauter

- Programs under consideration for Summer 2026 conference:

Abstract & Submission Requirements

- Abstract submission deadline: February 15.
- Each program requires the following to be submitted:
 - Abstract
 - Learning objectives
 - Assessment questions

Programs

- TC 5.1 did not sponsor any programs for this conference.
- Potential topics for future programs:
 - Wind load requirements and testing for roof mounted fans. Potential presenters:
 - ANSI/AMCA 280 - Mark VanderKooy
 - Code Requirements – TC 2.7 member
 - Miami-Dade NOA (Notice of Acceptance)?

- Fan Array Seminar – 2027 (planned)
- Regulatory Updates (future session topic)
- Fan Basics Seminar
 - Fan basic applications
 - Fan laws
 - Sound

Summer Conference Planning

- Joint session proposed: TC 5.1 + TC 5.2 + TC 5.3
 - Topic focus:
 - Fan Basics
 - Duct Design
 - Air Distribution
 - Volunteers:
 - Mark VanderKooy
 - Daniel Hernandez-Reyes
 - Nazme Mohsina
 - A joint seminar with TC 5.2 and TC 5.3 will be discussed
 - Energy codes and fan requirements across states. Volunteers:
 - Nazme Mohsina – AMCA unification effort update
 - Christian Taber – Ceiling fan and air circulating fans regulation overview
 - Experimental validation of design wind pressures for rooftop fans (possible topic for summer 2026 if AMCA 280 is published. Volunteers:
 - Mark VanderKooy – Overview of AMCA 280
 - Someone from 5.1 or 2.7 – Overview of current code requirements
- Potential program topics that need volunteers:
 - Fan array seminar
 - Fan basics seminar
 - Novel fan applications
- Deadline for seminar proposals for the 2026 summer conference is February 25, 2026.

b) Research

Devendra Kulkarni

- Research projects in process:
 - RP 1835 – Characterizing the Performance of Induced Flow Stacks
 - Tim Matson, Project Liaison, provided an update to Mark VanderKooy.
 - There has not been a substantive update on the project.
 - Weather conditions have not been favorable, impacting progress.
 - The test drone should be available during the summer months for the project.
 - Project deadline is unclear currently and needs clarification
 - 0001 – PRP: Update 2 of ASHRAE Publications; Application of Manufacturers' Sound Data, and Practical Guide to Noise and Vibration Control
 - TC 5.1 will volunteer to assist with this project. Members supporting:
 - Rishi Gosavi
 - Andrew Kacmar
 - Mark VanderKooy
 - The project has received bids. Project team will review bids and make recommendation to ASHRAE
 - Intent is to kick-off project by April 1st.
 - There has been a team working on updates for about five years. They meet monthly.

- Much of the content falls outside the purview of TC 5.1, but there is a chapter that covers fans.
 - The volunteers from TC 5.1 have volunteered to review certain content. They're planning to meet with the project team in February and March to provide feedback.
- Draft RTARs in process, and TC 5.1 Liaison:
 - Use of CFD to Determine Fan Installation Effects (Devendra Kulkarni)
 - ISO has introduced a new document regarding CFD
 - Follow up with Joe Brooks regarding RTAR versus withdrawing the project.
 - Method for Measuring Ceiling Fan Horizontal Air Movement and Impact on Fan Efficiency (Kevin Gebke)
 - Not yet started
 - Experimental Validation of Design Wind Pressures for Rooftop Mounted Fans (Mark VanderKooy)
 - The RTAR has been started. Daniel and others will provide updates on the draft.
 - Team reviewing the RTAR includes:
 - Mark VanderKooy
 - Daniel Hernandez
 - Robert Simmons (TC 2.7)
 - Samuel Martin (TC 2.7)
 - Hold a follow-up meeting after TC 5.1 to continue discussion on duct types with PRVs.
 - May expand scope of the RTAR to include roof-mounted ductwork.
 - Experimental Validation of Performance Models of Induction Motors Powered by Variable Frequency Drives (Dr. Gang Wang)
 - Project involves analyzing a motor controlled by a VFD to evaluate efficiency relative to pump trimming.
 - Scope includes motor input/output watts and efficiency loss evaluation.
 - Multiple RTARs were discussed, first RTAR would evaluate combined motor/VFD efficiency and second RTAR would evaluate combined system efficiency (e.g. VFD, motor, and fan or pump)
 - Draft RTAR will be made available for TC 5.1 to review.

c) Handbook

Z. Patrick Chinoda

- The TC will need to approve the chapter by the Winter, 2027 TC meeting.
 - Review of existing handbook content is 95% complete.
 - Harmonization with existing materials has been completed.
 - Once review of existing content is complete, the subcommittee will begin adding new content to the handbook:
 - FEI (Fan Energy Index) examples
 - FEI calculation method
 - Belt drive research findings
 - There was discussion about adding a system effects section. The consensus was to not add this section at this time.
 - Armin contributed information on fan leakage as a follow-up to a comment that was submitted by AMCA to the ASHRAE Standard 110 committee.
 - Discussion included where this new content will fit within the handbook. The subcommittee will discuss it at a future subcommittee meeting.
 - Difference between ACFM and SCFM was noted.
 - Section 10 (Fan Selection) requires a paragraph explaining this difference.
 - Kevin G volunteered to review Section 10 and provide input.

d) Standards

Nathan Fetting

- Standards of interest document is posted to Basecamp.
- The TC should identify and prioritize standards we want to actively monitor and/or engage with.
 - Nathan was unable to attend this meeting.
 - Committee asked for a volunteer to provide the update in his place at future meetings.
 1. Emphasis that this task is an oversight responsibility, not a significant time commitment.

e) Website

Devendra Kulkarni

- Website has been updated.
- January meeting agenda has been posted.
- Research topics and member roster have been updated.
- Mark VanderKooy updated and organized Basecamp, requesting suggestions from members.
- Members without access should notify leadership.
- RTAR documents are now available on Basecamp.
- Comments on submissions to TC have been posted.

10) Old Business

Mark VanderKooy

11) New Business

Mark VanderKooy

12) Future Meetings

Mark VanderKooy

- TC 5.1 subcommittees meetings will be scheduled prior to the 2026 ASHRAE Annual Conference

Mark will send a meeting invitation
- Main committee meeting will be held in conjunction with the 2026 ASHRAE Annual Conference

13) Adjourn

Mark VanderKooy