

ASHRAE TC 5.1 Fans Summer 2026 Meeting Agenda

Tuesday 6/29/2026, 4:30 - 6:30 PM CT
[Meeting Link](#)



[Sign-In Link](#)

1. Call to order

Mark VanderKooy

Meeting called to order at 4:33 PM Central Time

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 $\frac{1}{2}+1$ 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

- A quorum of voting members was confirmed (the names of the voting members present are in bold).
- Approximately 7–8 first-time attendees were recognized.
- Chair welcomed first-time attendees and encouraged them to look for opportunities to get involved in committee work, seminars, research, and standards activities.

5. Agenda additions

All

- No additions or modifications were proposed to the draft agenda.
- Agenda approved by consensus.

6. Approval of the previous meeting minutes

Mark VanderKooy

Minutes from the Winter Conference (Las Vegas) were reviewed.

Motion to approve the minutes from the 2026 Winter Conference:

Motion: Kevin Gebke

Second: Greg Wagner

Motion carried unanimously.

7. Chair's Report

Mark VanderKooy

Roster updates submitted in spring will take effect July 1

Voting members rolling off, effective July 1:

- Jamie Yeh.
- Eric Tingloff
- Greg Wagner

New voting members, effective July 1:

- Katlyn Stoker
- Robert Bissler
- Patrick Chinoda

The Chair thanked outgoing voting members for their service.

Committee Membership

- Committee roster exceeds 100 members.
- Approximately 50 members have not attended meetings during the past two years. Some of these members are unable to attend due to conflicts with other TC meetings.
- Chair plans additional roster cleanup during the next update cycle to purge roster of inactive members who no longer wish to engage with the TC.

Future Voting Members (2027 roster updates)

- Committee currently has 11 voting members.
- ASHRAE permits 6–18 voting members.
- Members interested in becoming voting members in 2027 are encouraged to notify the Chair.

Administrative Updates

- Members not receiving emails for the TC should contact the Chair.
- Members needing Basecamp access should also contact the Chair.

Future Summer Conference Format

- ASHRAE is evaluating options for future summer conference meetings. Options being discussed include a virtual conference and virtual TC meetings followed by an in-person leadership meeting. No changes are expected to the format of the summer conference before 2029.
- ASHRAE is requesting feedback on the format of future summer conferences. Comments can be submitted here:

[FOAC Comment Collector.xlsx](#)

8. Liaison reports (as they arrive)

Liaisons

a. Research Liaison

No Research Liaison report.

b. Section 5 Head

No Section Head report.

9. Subcommittee reports

a. Programs

Dr. Rich Stauter

Presented by Dr. Rich Stauter and Robert Bissler.

Seminar Updates

- TC 5.1 cosponsored Seminar 25: Testing of Non-Structural Components/Equipment at the Austin Conference. Mark VanderKooy gave a presentation titled: Test Methods for Wind and Impact Resistance for Fans and Ventilators
- TC 5.1 submitted a seminar proposals titled: Wind Load Requirements and Validation Testing for Rooftop Fans for the Austin conference. It was not accepted and will be resubmitted for the 2027 Winter Conference in Chicago.
- Additional Chicago 2027 Seminar Ideas and Volunteers:
 - Energy codes and state fan regulations
 - Nazme Mohsina
 - Christian Taber
 - Paul Rafferty
 - Fan arrays
 - Mo Ashfin previously volunteered (Rich/Robert to coordinate)
 - Fan basics seminar
 - Brent Fullerton
 - Kevin Gebke
 - Daniel Hernandez-Reyes or Nazme Mohsina
 - Mark VanderKooy or Nathan Fetting
- Potential future topics discussed:
 - Emerging motor technologies
 - Transition from belt-drive to direct-drive systems
 - EC motors
 - FEI integration
- The committee agreed to prioritize the following seminars for Chicago:
 - Wind load seminar (resubmit)
 - Energy code/state regulation seminar
 - Fan basics seminar

b. Research

Devendra Kulkarni

RP-1835 – Characterizing The Performance of Induced Flow Stacks

A status update was provided by Tim Mattson and Devendra Kulkarni:

- Testing resumed after delays.
- Conventional stack testing completed.
- One induced-flow fan completed.
- Remaining testing is expected to be completed during summer.
- Project extended through August 2026.

0001-PRP – Update of 2 ASHRAE Publications: Application of Manufacturers' Sound Data and Practical Guide to Noise and Vibration Control

A status update was provided by Mark VanderKooy and Brandon Cudequest:

- Stantec has been selected as the contractor who will be editing the publications.
- Monthly review meetings are being held between the project committee, and editing contractor
- Andrew Kacmar and Rishi Gosavi are supporting for TC 5.1

CFD Installation Effects Research Proposal

- Draft work statement undergoing revision. Comments incorporated from several committee members.
Scope coordination underway with ISO TC117 Working Group 15 to avoid overlap.
- Joe Brooks reported that the ISO effort focuses primarily on fan design methodology rather than system interaction.

- Volunteers interested in ISO participation may contact Joe Brooks.

Experimental Validation of Performance Models of Induction Motors Powered by Variable Frequency Drives (VFDs)

- Draft RTAR was shared with TC 5.1. Devendra reviewed and will provide his comments to Gang Wang.
- First phase of project will be to analyze motor/VFD efficiency.

Experimental Validation of Design Wind Pressures for Rooftop Mounted Fans

- Scope being expanded to include rooftop-mounted ductwork.

c. Handbook

Z. Patrick Chinoda

- Handbook updates are now due by March 2027.
- Chapter review is nearly complete.
- Revised chapter is expected to be ready for committee vote before the Winter meeting.
- Major Updates:
 - Fan terminology harmonization with TC 1.6
 - Addition of fan leakage commentary
 - Clarification of ACFM vs. SCFM
 - General technical updates throughout the chapter
- The committee will continue finalizing updates to the chapter and will plan to complete the revisions in time for a committee vote during the November interim meeting to allow time for any final revisions before the Winter conference.
- Patrick reported that several proposed additions could not be accommodated within the current handbook revision cycle and will be deferred to the next review cycle. These updates include:
 - Addition of direct-drive research findings (suggested by Zhiping).
 - A comprehensive review of historical inlet and outlet system effect research results.
- The subcommittee agreed that these topics require additional time and effort and will be included in the next handbook revision cycle.
- Patrick encouraged committee members to submit any additional suggestions or technical content they believe should be included in future revisions so they can be captured early in the next review cycle.
- No additional comments or questions were received from attendees in person or online.

d. Standards

Nathan Fetting

Nathan provided an overview of current standards activities and reminded members that the committee maintains a standards reference document on Basecamp, originally developed by Joe Brooks and updated regularly, to help members track standards activity across the industry.

AMCA Updates, Presented by Nazme Mohsina

- AMCA Standard 99 was updated last year.
- AMCA Standard 207 is currently under revision to incorporate AHRI standards and improve international applicability.
- AMCA Standard 230 is being updated to incorporate CEF1 requirements. Current work also includes reviewing the scope of fan testing standards.
- AMCA Standard 203 is under its scheduled review with no major technical revisions anticipated.

AMCA 280 Presentation

- Mark VanderKooy summarized his conference presentation on AMCA Standard 280 – Test Method for Wind and Impact Resistance of Fans and Ventilators. Highlights include:
 - Building codes require exterior-mounted fans and ventilators to resist prescribed wind loads.
 - Miami-Dade Notice of Acceptance (NOA) approvals are broadly used to demonstrate code compliance.

- Historical testing relied on TAS 201 and TAS 202, which were developed primarily for windows, doors, and other building envelope products rather than fans.
- ANSI/AMCA 280, approved in February, provides a fan-specific testing methodology addressing:
 - Large missile impact testing
 - Lateral and uplift loading
 - Functional pass/fail criteria
 - Standardized reporting requirements
- The standard was developed through a collaborative effort involving manufacturers, consulting engineers, testing laboratories, and academia.
- Miami-Dade adopted AMCA 280 as a test method for fans and ventilators.

Nathan requested that a non-conference version of the presentation be posted to the TC Basecamp for member reference.

AHRI Standards

Jamie agreed to obtain updates regarding current revisions to AHRI Standards 430 and 431 and share them with the committee through Basecamp.

ISO TC 117 Update

Presented by Joe Brooks

Joe has been designated liaison between TC 5.1 and ISO TC 117 and provided an update on ISO TC 117:

- ISO TC 117 currently maintains 28 published documents, with nine projects under development or revision. Current work includes:
 - CFD-based fan performance methods.
 - Air curtain performance standards.
 - Revisions to ISO 5801.
 - Fan efficiency and motor efficiency standards.
 - Jet fan testing standards.
- Joe explained the ISO standards development process, including working drafts, committee drafts, international ballots, and systematic five-year reviews.
- Members interested in participating as technical experts in ISO working groups are encouraged to contact Joe Brooks.

ASHRAE 90.1 Interpretation

- Nazme summarized a recent ASHRAE 90.1 interpretation regarding Fan Energy Index (FEI) requirements.
- Where an approved third-party certification program exists, compliance with FEI requirements is expected through that certification pathway or through testing by an accredited third-party laboratory.

Nathan encouraged committee members with expertise in specific standards organizations to become more involved in future Standards Subcommittee activities and presentations.

e. Website

Devendra Kulkarni

Website updates include:

- Current meeting information is up to date.
- Historical committee documents have been reorganized and archived.
- Research information remains current.
- Committee roster will automatically update following the July 1 roster changes.
- Minor issues with meeting links have been corrected.
- Members were encouraged to review the website and submit suggestions for improvements.

10. Old Business

No old business was brought forward.

11. New Business

12. Future Meetings

- Interim Committee Meeting: Monday September 14, 2026; 3:00-4:30pm CT
- Interim Committee Meeting: Monday November 16, 2026; 3:00-4:30pm CT
- Subcommittee meetings to be held prior to the 2027 Winter Conference
- Main committee meeting to be held in conjunction with the 2027 Winter Conference

13. Adjourn

The meeting was adjourned at 6:31 PM Central Time