



AMCA International 2021 Division Meetings

7 December 2021

Marcel Kamutzki

AMCA Air Movement
Division Chair

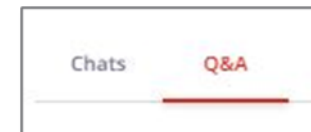


Introductions & Guidelines

Marcel Kamutzki

- Today's meeting agenda and minutes from the November 2, 2020 Division Meeting were emailed to all registrants yesterday.
- Audience will be muted during the program.
- Questions can be submitted anytime via the Airmeet platform and will be addressed at the end of the presentation. **To submit a question:**

1. *On the attendee control panel on the side of your screen, select the "Q&A" menu item.*



2. *Type your question in the text box at the bottom of the screen. Please begin with the name of the person to whom your question is directed.*

3. *Click the arrow on the right side of the text box to send.*



- Reminder: This program is being recorded.

1. Call to Order

Marcel Kamutzki

The meeting will officially be called to order.

2. Roll Call

Marcel Kamutzki

The Airmeet registration list will serve as the attendee roll call.

3. AMCA International Policies and Guidelines

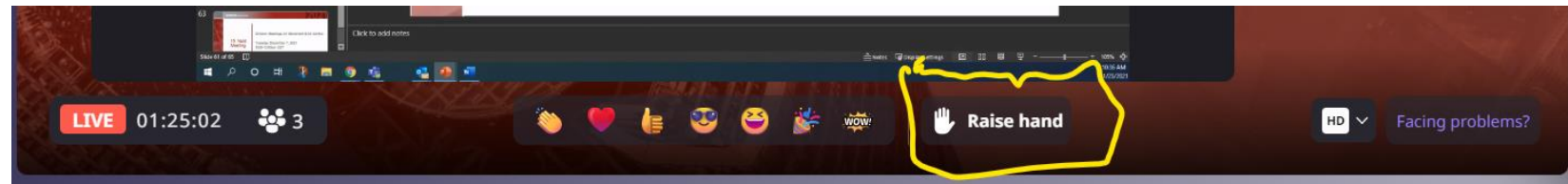
Marcel Kamutzki

- *Available on AMCAConnect:*
<https://www.amcconnect.org/home/myamca/members-handbook-details>

4. Adoption of Agenda

Marcel Kamutzki

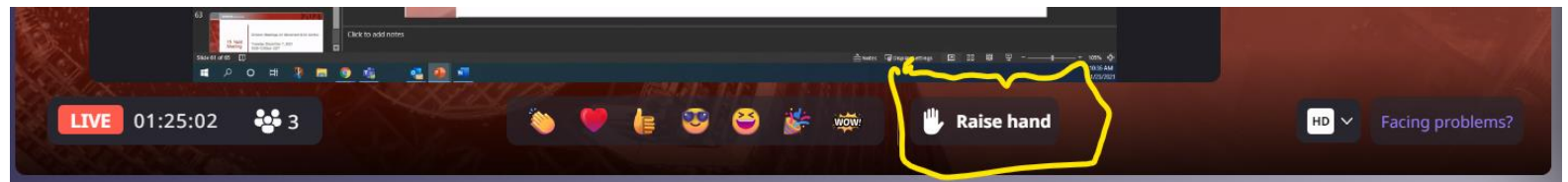
- *The agenda will be adopted by consensus.*
- *Please **raise your hand** on your control panel at the bottom of your Airmeeet screen if you have any additions or objections.*



5. Approval of Minutes from the Previous Meeting

Marcel Kamutzki

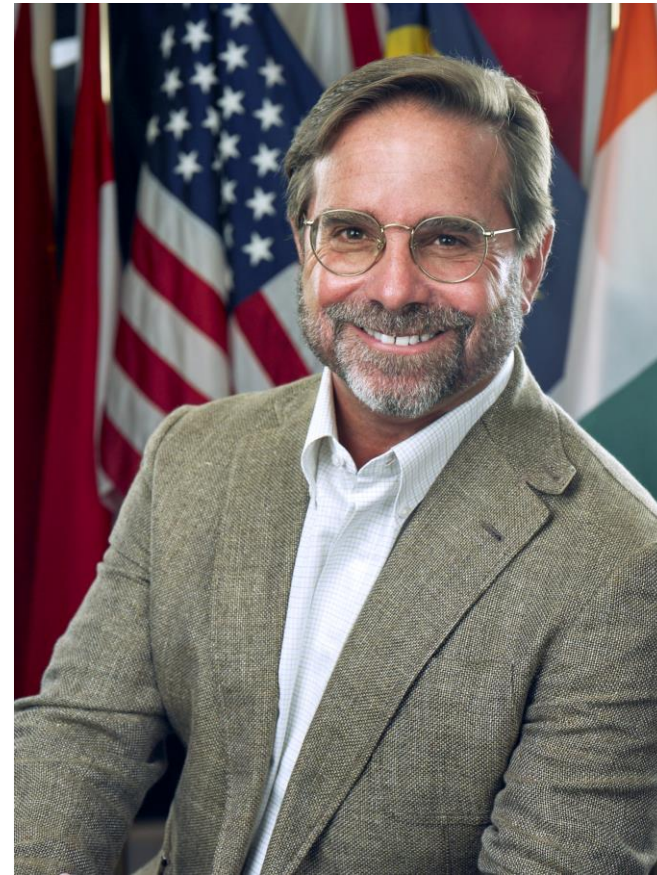
- *A motion is in order*
 - *Minutes from the meeting on December 8, 2020 were sent to everyone last week.*
- *Please **raise your hand** on your control panel at the bottom of your Airmeeet screen to make a motion to approve.*



- *After the second motion, please raise your hand if you have any objections.*

6. Air Movement Division Advocacy

Michael Ivanovich
*Senior Director,
Global Affairs*



Advocacy— Air Movement Division

- Asia
- Europe
- North America
- Middle East

Asia Advocacy

Madam Goh
Tan Tin Tin
Preston Koh

Asia AMCA Region
Steering Committee
Chair: Asokdas
Damodaran

- Asia AMCA Advocacy will have a more formalized start in 2022 as part of strategic planning
- Energy efficiency for commercial and industrial fans is dominant topic
- FMEG and FEG using ISO-12759 are dominant metrics
- FEI had positive reactions in India, Singapore and Malaysia during previous strategic plan
- China has its own standard and metric

European Advocacy

Francesco Gattiglio
Hassan Abou Jawhar
Mark Stevens
Nazme Mohsina
Tim Mathson
Michael Ivanovich

European AMCA
Engineering Committee
Chair: Mikael Lonnberg

- EC 327 Tier III draft to be published in Q1 2022
- European AMCA Memorandum of Understanding in works with Eurovent Association for collaborative advocacy
- Possible collaboration between AMCA Intl. and Eurovent Certification for fan certification
- AMCA International working with Fans Working Group of EVIA (EU ventilation industry association) on Post-FMEG Roadmap
- European AMCA staff departing in January 2022; stay tuned for updates

Middle East Advocacy

Mandarr Agshikar
Robb Clawson
Michael Ivanovich

AMCA Middle East
Steering Committee
Chair: Prakash Asnani

- Possible expansion of Koffel Associates contract into UAE advocacy
 - AMCA CRP
 - Fire/Smoke Dampers
 - Technical support
- AHRI, ICC, ASHRAE, ASTM, Emirates Green Building Council active in the region; collaborations in works for education, advocacy
- Advocacy via education is dominant vehicle
- ME Region Steering Committee will focus on UAE, Egypt, and Kingdom of Saudi Arabia

North America

Michael Ivanovich
Aaron Gunzner
Nazme Mohsina
Tim Mathson

North American Region
Steering Committee
Chair: Frank Cuaderno

North America Region
Advocacy Committee
(AMCARC)
Chair: Christian Taber

Energy Efficiency
Subcommittee
Chair: Mark Publitz

Rebate Committee
Chair: Bill Armstrong

COVID Research Team

- Large Diameter Ceiling Fans
 - Regulations, Energy Codes, COVID
- Commercial and Industrial Fans
 - Regulations, Energy Codes, Rebates
- Air Curtains
 - Energy Codes, COVID

Large Diameter Ceiling Fans Regulations

- Change in regulatory metric from cfm/W to ceiling fan energy index (CFEI)
- Federal test procedure and energy standard under review for revision
 - Five years from 2016
 - Proposed:
 - Expanded compliance certification parameters
 - Standby power requirement
 - Coverage of belt-driven products and LDCFs > 24-ft diameter

Large Diameter Ceiling Fans Regulations

- Note: AMCA 230 entering revision cycle
 - AMCA 230 referenced by DOE
 - Changes to AMCA 230 do not change DOE regulation
 - AMCA requesting DOE reference **FUTURE** AMCA 230 **before** setting new requirements

Large Diameter Ceiling Fans

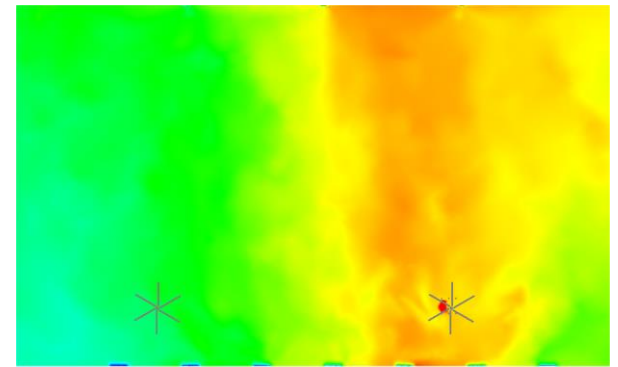
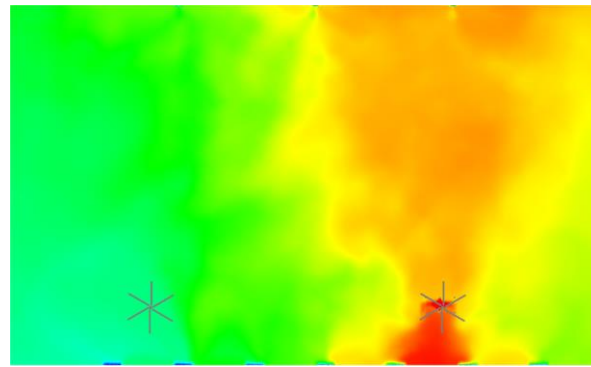
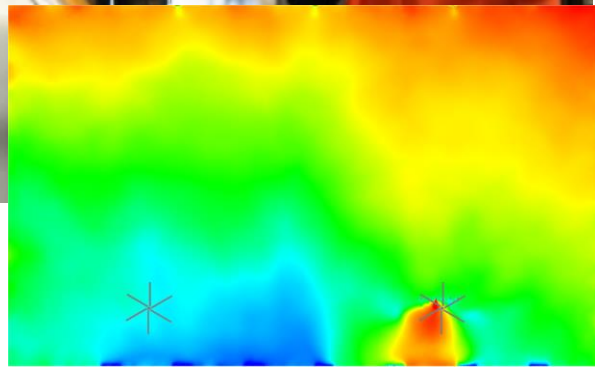
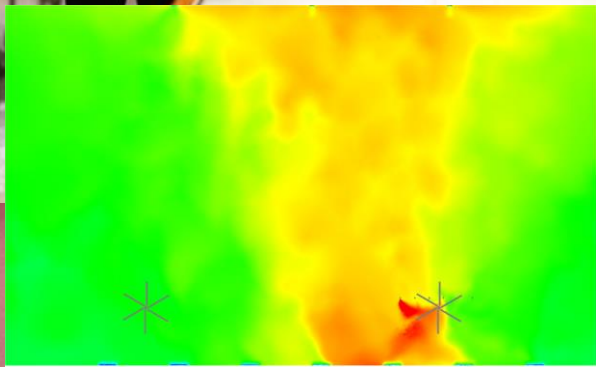
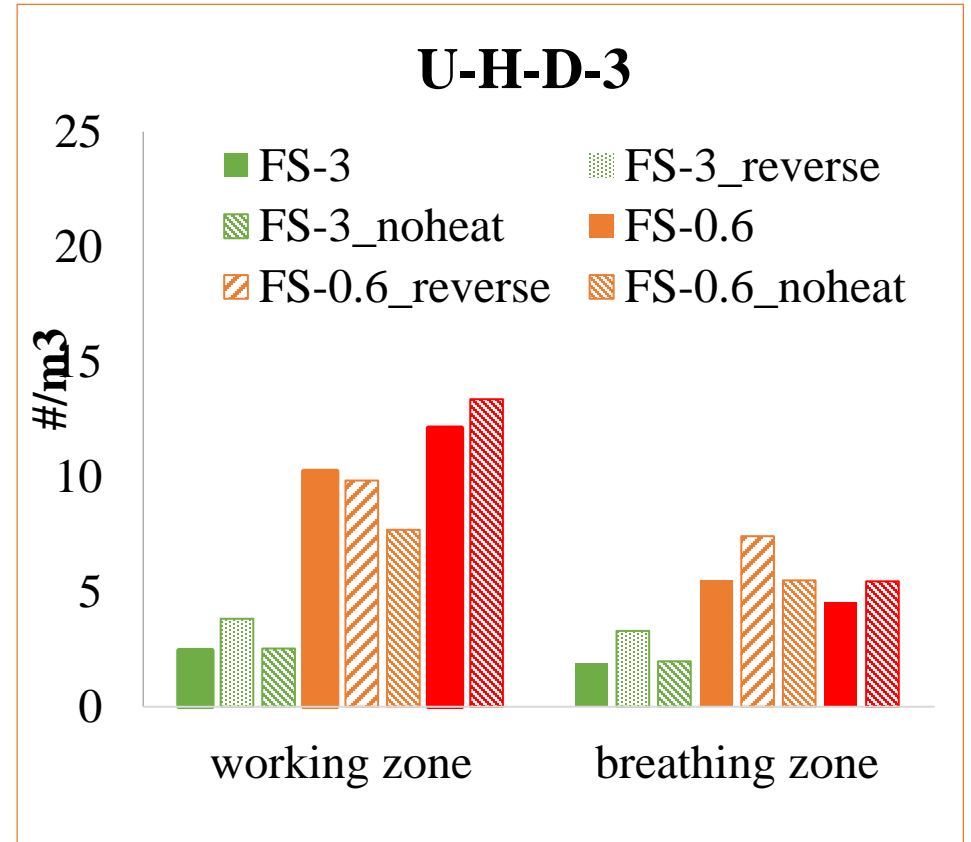
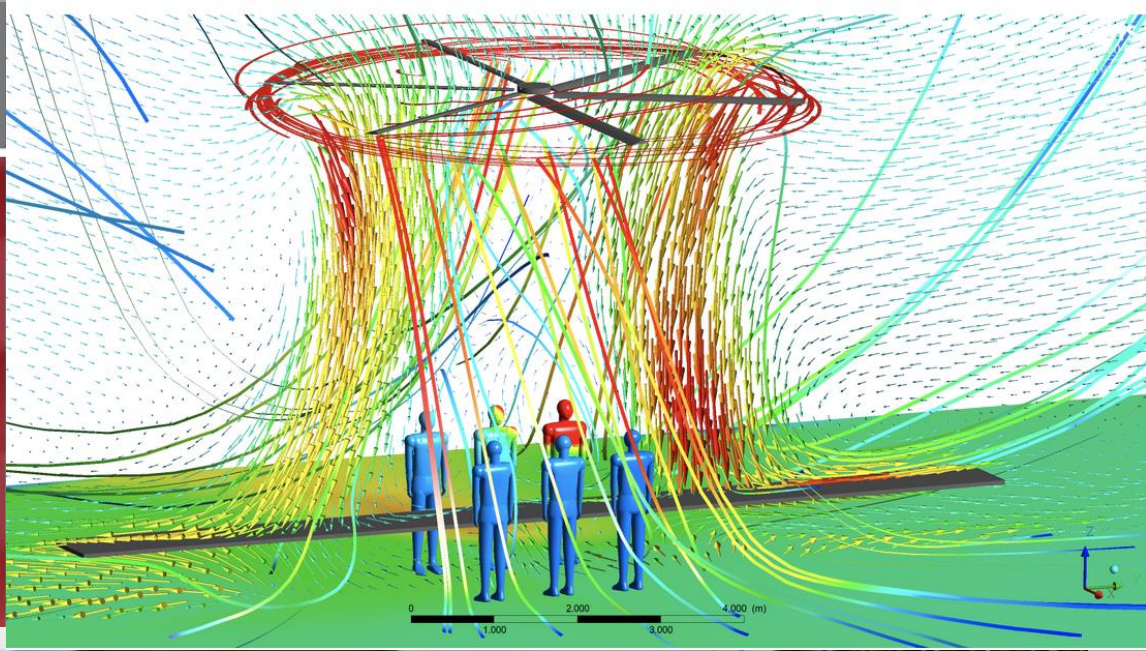
Energy Codes

- ASHRAE 90.1 energy standard for non-residential buildings
 - Add CFEI
 - Increase documentation requirements (more parameters than current DOE regulation)
- International Energy Conservation Code
 - Harmonize with ASHRAE 90.1

Large Diameter Ceiling Fans

COVID Research

- Provides guidance on reducing COVID-19 exposure in warehouses and similar spaces
 - large volume, sparse occupancy
- Warehouses second largest building type by square foot in USA
- Critical to supply chain
- Guidance targets building owners/operators
- Big Ass Fans, Greenheck, Hunter Industrial, MacroAir co-funded
- Seeking to supplement existing public guidance
- Publicly communicating via webinar, publications, social media



Commercial & Industrial Fans

Regulation

- U.S. Department of Energy (DOE) issued final determination that they have the authority to regulate commercial and industrial fans
- Adopted AMCA 214 definition of "fan"
 - *Blowers* and *Fans* are interchangeable words
- AMCA 214-21:
 - References test methods applicable to FEI (AMCA 210, ISO 5801, AMCA 230, etc.)
 - Establishes FEI calculation method (integration of AMCA 207, 208, 211)
 - Goal is for REGULATORS to adopt AMCA 214 as test procedure
 - DOE, possible; so far so good
 - California – YES, for sure
- DOE seeking to expand regulation to include circulating fans that are not ceiling fans

Commercial & Industrial Fans

Regulation

- California moving forward with Title 20 fan efficiency regulation
 - Expect January 2022 “to avoid holidays”
 - No circulating fans or embedded fans (no cascading regulation, in European terms)
- Adopted AMCA 214 definition of “fan”
 - Blowers and Fans are interchangeable words
- DOE issued Request for Information (RFI) on air circulating fan heads
 - Effectively expands scope to include circulating fans that are not ceiling fans
 - AMCA 230 is test method; AMCA 214 is FEI calculation method



Commercial & Industrial Fans

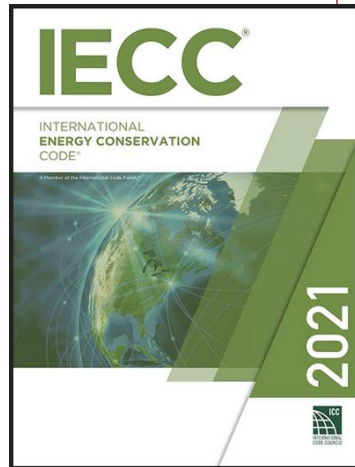
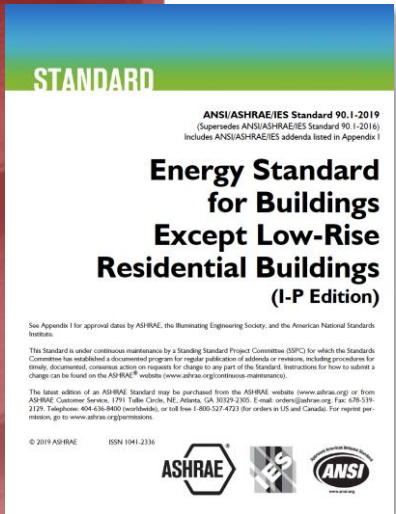
Regulation

- Timelines: California (fairly certain)
 - California Test Procedure and Energy Standard simultaneous
 - Re-start and finish in 2022
 - **Become effective in 2023**
 - Other states likely to follow via efforts of advocates
- Timelines: U.S. Dept. of Energy (if moving fast)
 - Test procedure finished and effective as early as 2022
 - Use AMCA 214 for much of it
 - When published, can become effective in 180 days
 - Establishes metric, method of test; public reporting/sales info
 - Energy Standard
 - Started in 2022; finished in 2023; effective in 2028
 - When DOE effective, State regulations go away
 - **Canada adopts DOE when DOE is finished**

2021

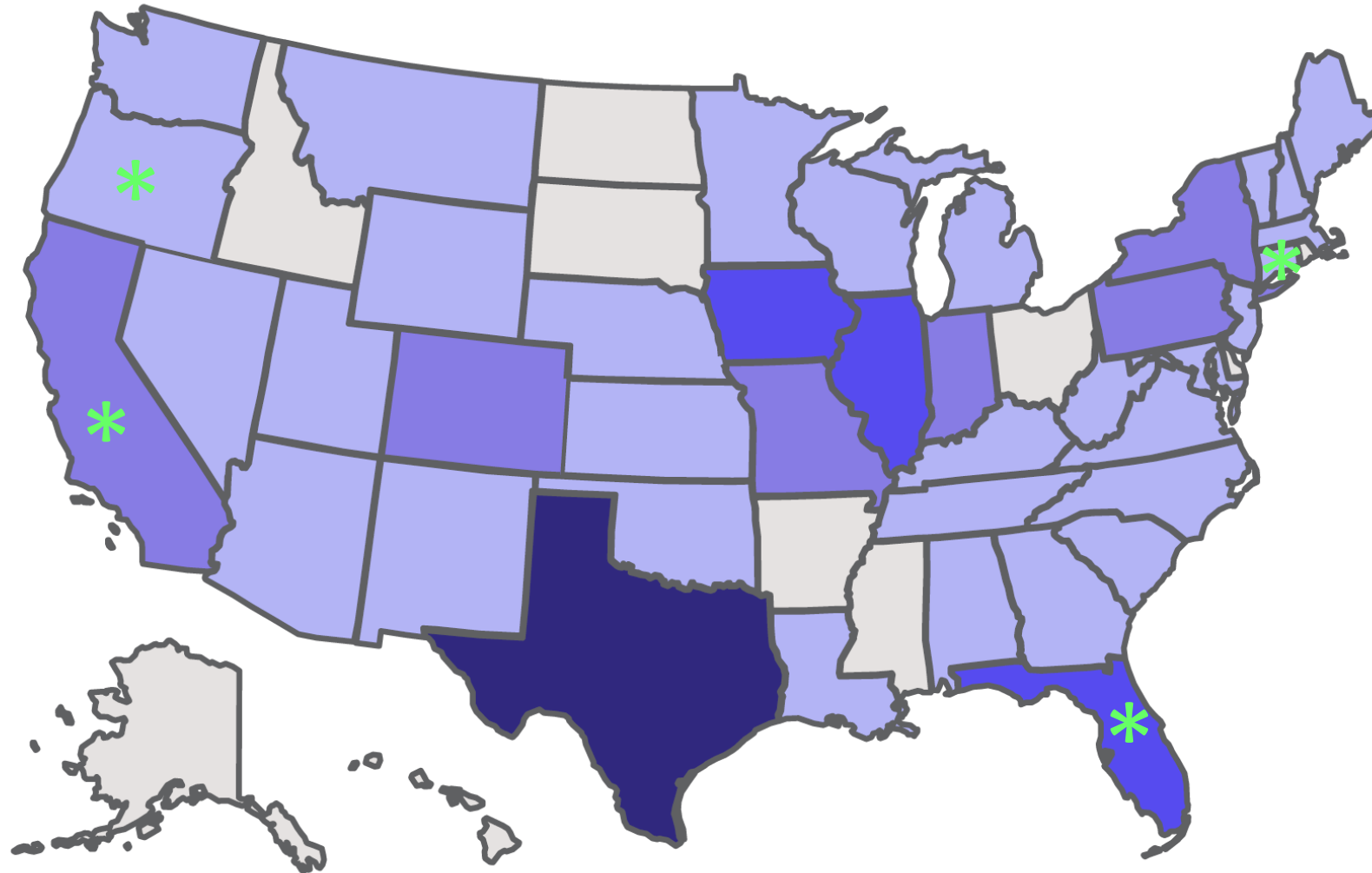
Commercial & Industrial Fans



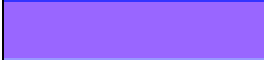


Energy Codes



- ASHRAE 90.1-2022
 - Language cleanup for FEI
 - Driven by AMCA
 - New and vastly different “fan power limits” language will tighten fan requirements by limiting air-system static pressure
 - Driven by advocates; strong interest by AHRI
- International Energy Conservation Code – 2024
 - Harmonize with ASHRAE 90.1
- State energy codes **adopted** FEI provisions, some with **third-party certified ratings**
 - **California** • **Connecticut** • **Florida** • Oregon

U.S. Map of FEI in Project Specs & State Energy Codes



LEGEND	
State color	# of specs w/ FEI in 2020-2021
	40+
	30+
	10+
	1+
	FEI in state energy code as of early 2022

Map image courtesy of ConstructConnect

Commercial & Industrial Fans

Rebates

- Several electric utilities offering FEI-based rebate/incentive programs
 - Report in progress
 - Harmonization in progress
- AMCA adding Rebate Support to Website
 - www.amca.org/fan-rebates
 - Stay tuned for announcements

EQUIPMENT REBATES

Fan Energy Index Rebates

Earn rebates that reduce your upfront costs and help you save energy and money in the long term.

ComEd.
Energy Efficiency Program

[Home](#)

Fan Energy Index

Partner: *Slipstream*

This research project examined the market readiness of the recently developed Fan Energy Index and id incorporate this index into the ComEd Energy Efficiency Program portfolio.

Overview

Air Curtains

Aaron Gunzner

Air Curtain Engineering
Committee

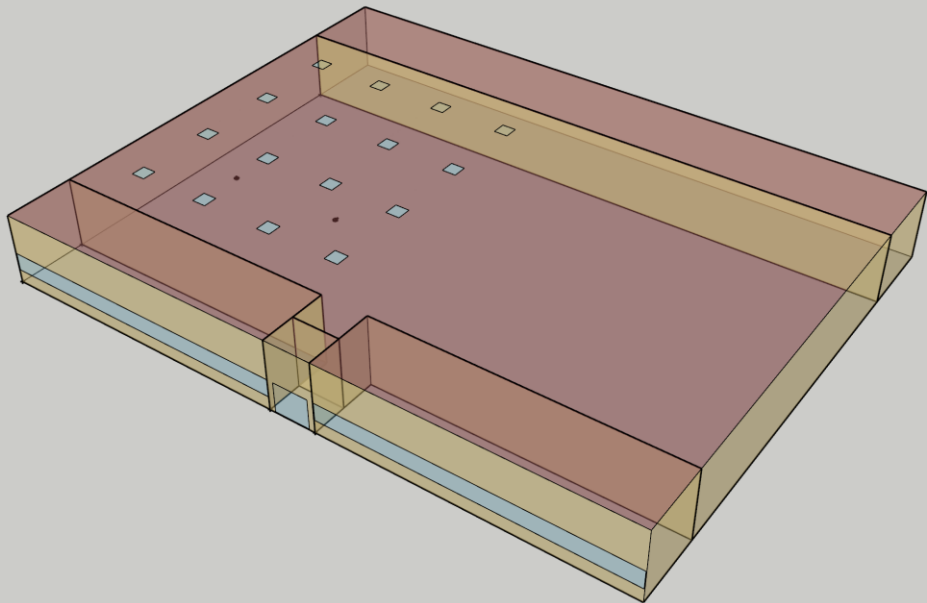
Chair: Brian Jones

AMCARC

Chair: Christian Taber

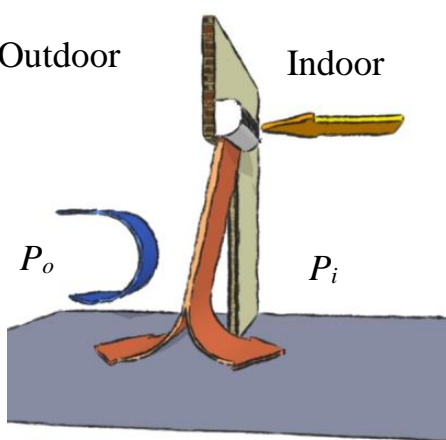
COVID Research Team

- Energy Codes having air curtain language refreshed, harmonized
- COVID research just getting started
 - Goal is to determine if air curtains have a negative impact on potential COVID exposure
 - Focus is zoned area of a big-box retail store with customers entering/leaving and a cashier
 - Berner Intl., Carver Group, Mars, and Powered Air providing co-funding
- AMCA adding Air Curtain support to Website
 - www.amca.org/AirCurtains
 - Stay tuned for announcement



Outdoor

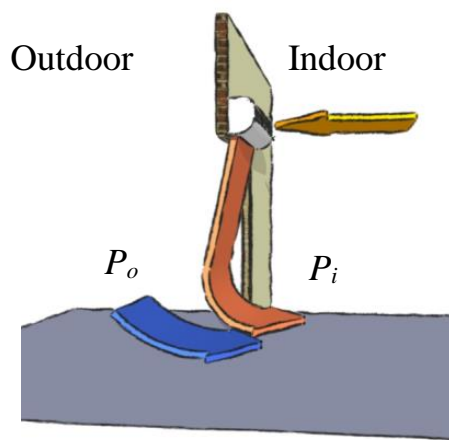
Indoor



(a). Optimum condition
when $\Delta P_{lc} < \Delta P_{oi} < \Delta P_{uc}$

Outdoor

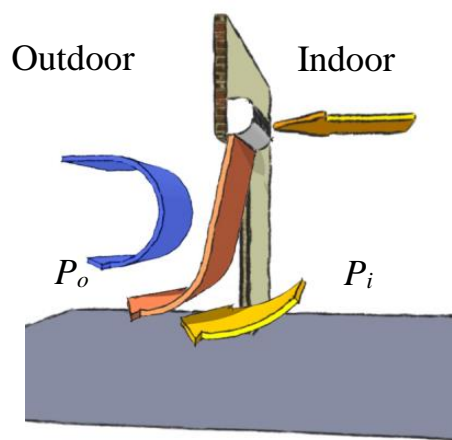
Indoor



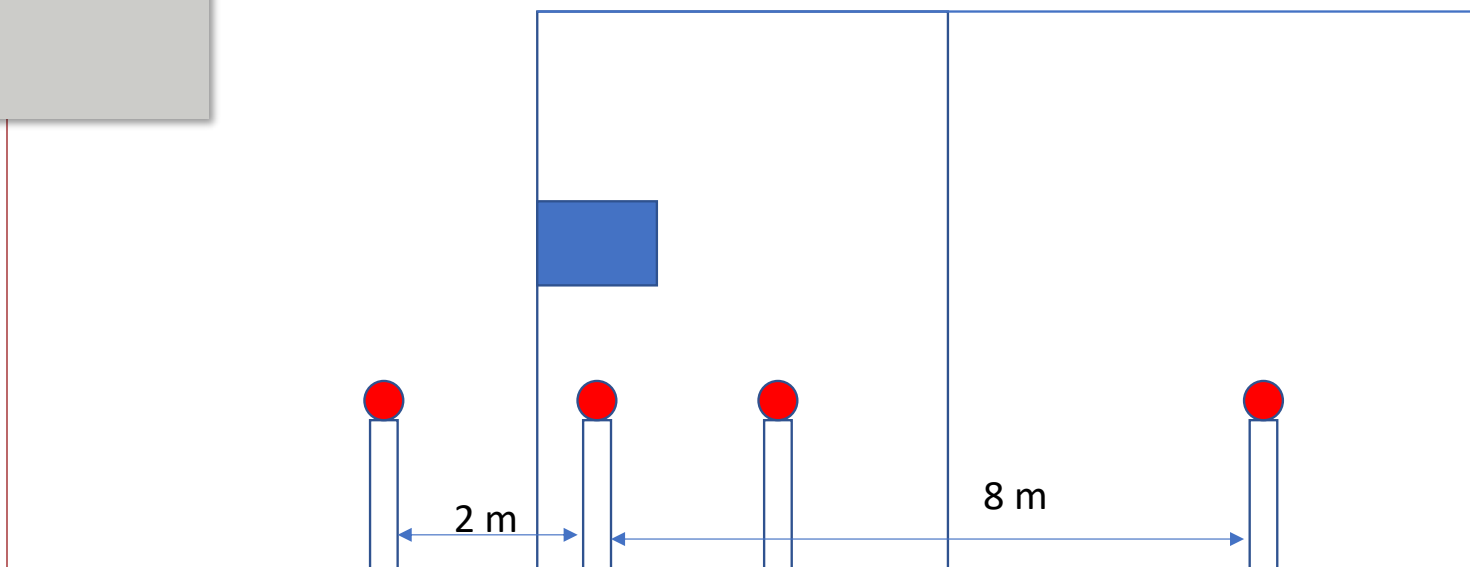
(b). Inflow breakthrough
when $\Delta P_{oi} > \Delta P_{uc}$

Outdoor

Indoor



(c). Outflow breakthrough
when $\Delta P_{oi} < \Delta P_{lc}$



Occupant location (infector)
Three locations

Cashier as infector

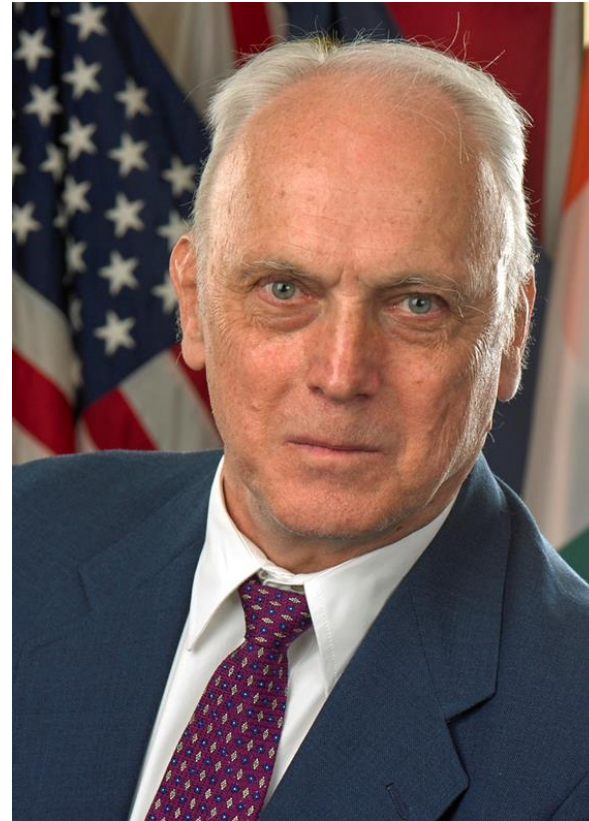
Resources

- Large Diameter Ceiling Fans
 - www.amca.org/LDCF
- Commercial and Industrial Fans
 - www.amca.org/FEI
 - www.amca.org/Rebates
 - (future)
- Commercial and Industrial Fans
 - www.amca.org/AirCurtains
 - (future)

7. Air Movement Division Publications & Standards

Joe Brooks

*Director of
Publications & Standards*



Outline



Publication Process



YTD Updates



Under Review



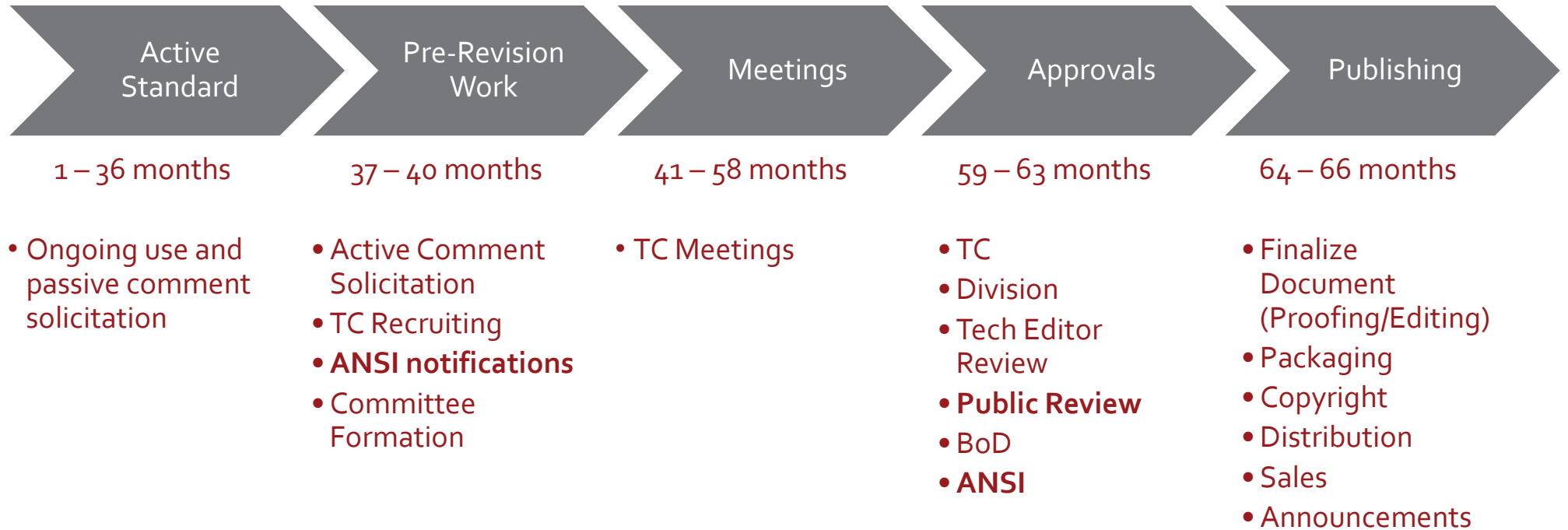
Look to the Future



ISO

Current Publications 10-year cycle

Ideal

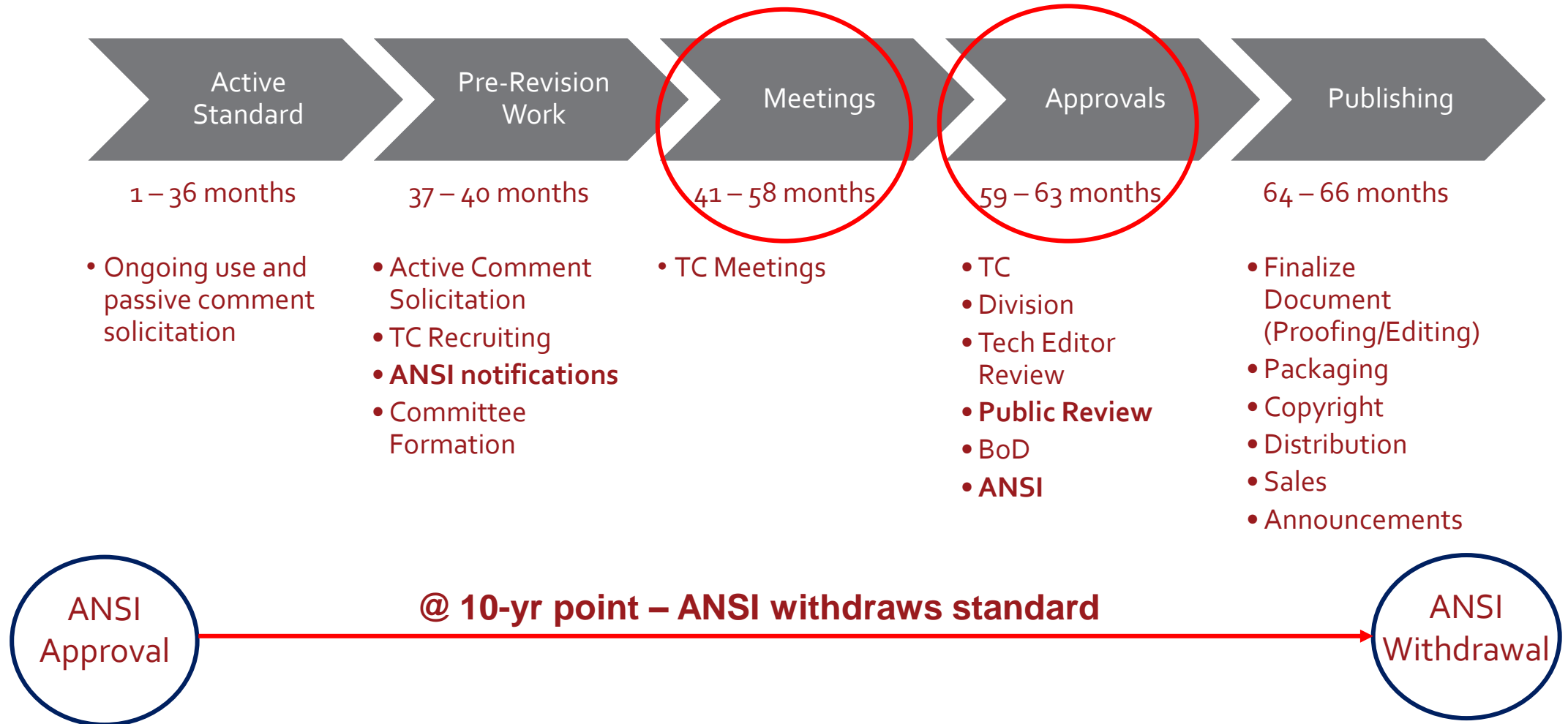


@ 10-yr point – ANSI withdraws standard



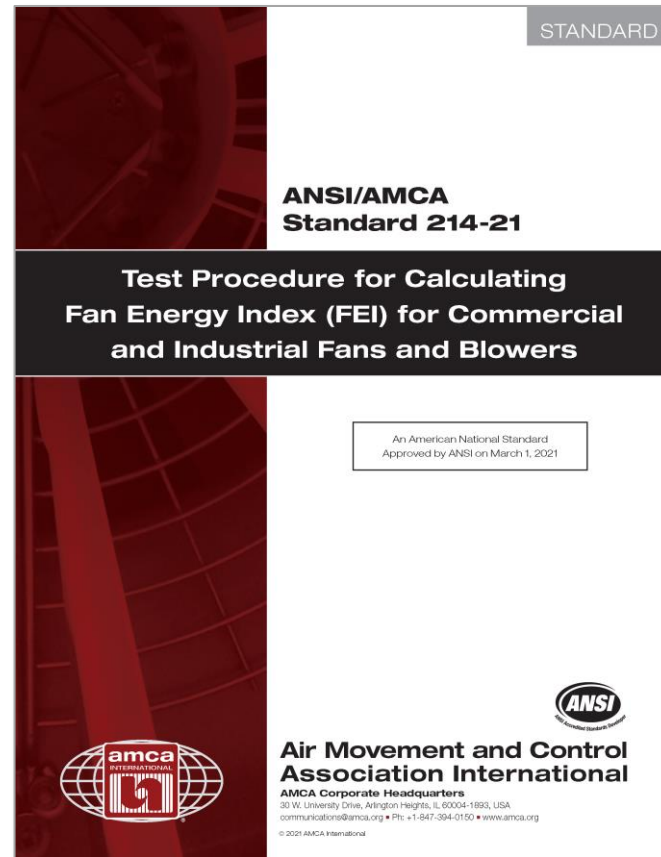
Current Publications 10-year cycle

Stumbling Blocks



AMCA 214

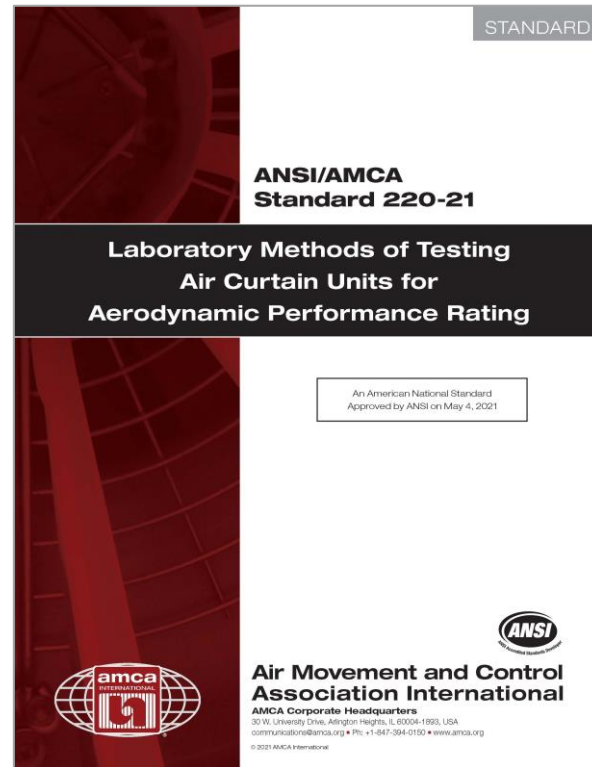
YTD
Update



FEI Calculation
Approved 3/1/2021
First Mtg. 1/30/19

AMCA 220

YTD
Update



Air Curtain Unit M.o.T
Approved 5/4/2021
First Mtg. 7/26/2016

Under Review

Standards

Standard	Approval date	Start Prelim.	Start (1st mtg)	Start Approval	ANSI Approval	Published	ANSI w/d
	0 (months)	+36	+40	+58	+64	+66	+120
210	08/26/16	2019					08/26/26
230	10/16/15	2021					10/15/25
240	05/09/15	2018	9/1/20	5/26/2021			05/09/25
250	02/22/12	2015	5/27/20	9/20/2021			02/22/22
270	new	2019	4/9/20				new
280	new						new
300	08/14/14	2017	6/23/21				08/14/24
301	08/14/14	2017	12/2/20	10/11/2021			08/14/24
320	09/17/13	2016	8/19/20				09/18/23
340	new	2021					new

Under Review

Publications

Publications	Approval date	Start Prelim.	Start (1st mtg)	Start Approval	Published	10 Yr cycle end
	0 (months)	+36	+40	+58	+66	+120
200	2011 R	2014				2021
201	2011 R	2014	12/7/18	10/11/2021		2021
203	2011 R	2014	4/13/16	7/5/2018		2021
206	3/31/15	2018				3/31/2025
211	8/21/13	2016	3/20/19	11/24/2020		8/21/2023
213	12/27/12	2017				12/27/2022
302	2/24/12 R	2015				2/24/2022
303	2012 R	2015				7/14/1905
801	5/4/08 R	2014				5/4/2028
803	5/4/08 R	2014				5/4/2018

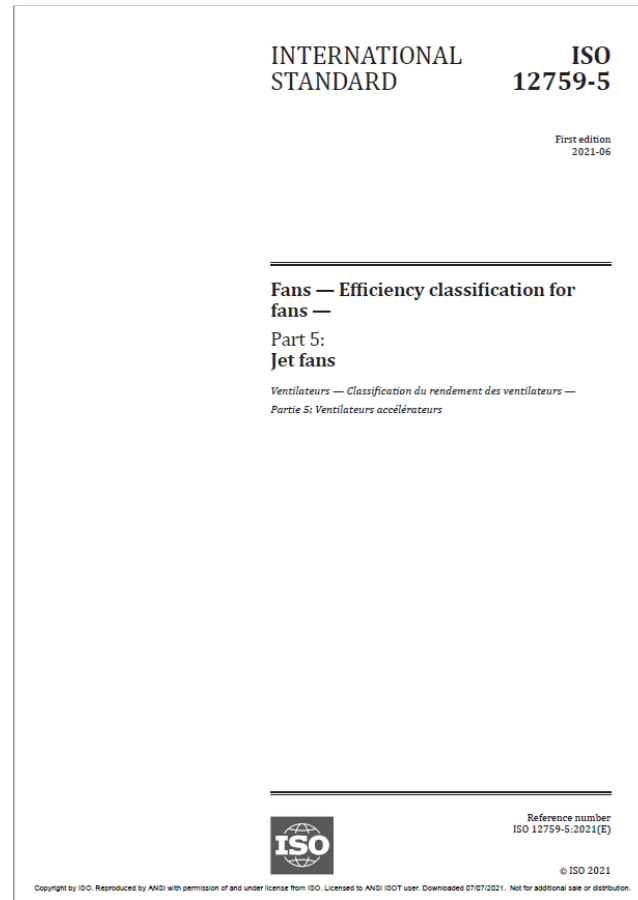
Look to the Future

Next Projects:

1. AMCA 230 – Laboratory Methods of Testing Air Circulating Fans for Rating and Certification (revision or reaffirmation)
2. AMCA 280 - Test Method for Wind Resistance, Impact Resistance, or Both for Fans (new standard)
3. AMCA 340 - Laboratory Method of Sound Testing of Large Diameter Ceiling Fans (new standard)

ISO 12759-5

ISO/TC117
YTD Update



Fans – Efficiency
classification for fans –
Part 5: Jet fans
Published: June 2021

ISO Projects in Process

		Prelim.	WD	CD	DIS	FDIS	Published
12759-1		X	X	X			
	General [Fan efficiency] requirements						
12759-6		X	X	X			
	FEI Calculation						
13347-1		X					
	Sound Testing Gen. Requirements						
13347-2		X					
	Reverberant Rm Testing						
13347-3		X					
	Enveloping Surface Method Testing						
13347-4		X					
	Sound Intensity Testing						

ISO Projects in Process (cont'd)

		Prelim.	WD	CD	DIS	FDIS	Published
13348		X	X	X			
	Tolerances, methods of conversion, data presentation						
13349		X	X	S	X		
	Vocabulary						
13350		X	X	X	X	X	
	Jet Fan Testing						
27327-1		X					
	Rev. for Air Curtain Uits (ACU) air performance testing						
24660		X	X	X			
	PPV MoT						

ISO Technical Report Projects

little progress was made

TR16219	System Effect on Fan Power
TR23630	CFD predictions for fans based on multiple variable parameters
TR 27327-3	Test methods to determine Air Curtain Unit (ACU) Effectiveness

ISO Look to the Future

What's Next:

1. Joint Advisory Group (IEC/TC2/SC22G/JAG22) – Optimized Energy and Power Consumption of Electric Driven Machine Units (EDMU)
2. ISO 27327 (Revision) –Air Curtain Unit Air Performance Test Method – update to harmonize with AMCA 220-21
3. Possible introduction of a MoT for Air Circulating Fans (i.e, AMCA 230) once AMCA 230 is revised

RESOURCES

From Your P&S Dept.

- P&S Webpage:
 - A list of all AMCA publications, standards and program documents
 - Year round comment repository for publication, standards, and program documents
 - Lists of all standards under review
 - Current Errata and Interpretations (coming soon)
- Member Handbook: All active committees with rosters (under Member section of AMCA website)
<https://www.amcaconnect.org/home/myamca/members-handbook-details>
- Blue Book – *Procedures for the Development of AMCA Standards and Publications* (Available from staff)

8. Questions

Marcel Kamutzki

To submit a question:

1. *On the attendee control panel on the side of your screen, select the “Q&A” menu item.*



2. *Type your question in the text box at the bottom of the screen. Please begin with the name of the person to whom your question is directed.*
3. *Click the arrow on the right side of the text box to send.*



9. Election of New Air Movement Division Chair & Vice-Chair

Marcel Kamutzki

- 2019- Marcel Kamutzki elected AM Division Chair, and Brett Vake elected as Vice Chair at Annual Meeting
- Division Chair & Vice Chair are two-year terms
- TODAY- Marcel steps down as current AM Division Chair; Brett Vake nominated as the new AM Division Chair
 - A motion is in order to approve Brett Vake as Chair
 - Please raise your hand to approve, and to second the motion
 - After the second motion, please raise your hand if you object.
- Nominations for new AM Division Vice Chair to be sought in 2022
- Election to be held during 2022 Annual Meeting

10. Upcoming Meetings

Marcel Kamutzki

2022

- **January 2022** (Date TBA): Asia Regional Meeting
- **March 2022 Meetings**- In person
 - Idea Exchange; March 1-3
 - NA Region Meeting; March 2-4
 - NA Steering Committee; March 3
 - Executive Committee Meeting; March 4-6
 - Board of Directors; March 5-6
- **July 2022** (Date TBA): European Regional Meeting & Board Meeting
- **2022 Annual Meeting**: Date & location TBA

11. Adjournment

Thank you for joining the
2021 AMCA Division Meetings!

If any remaining time is left, please join the
networking tables in the social lounge.