

TC2.3 Program Subcommittee Meeting Minutes for Tampa on June 27, 2023

ASHRAE Code of Ethics: <https://www.ashrae.org/about/governance/code-of-ethics>

Attendees: Toria Binz, Caitlin Naske, Mick Flom, Brian Krafthefer, Paula Levasseur, Sanjeev Hingorani, Viver Gaur, Henry Greist, Chris Vazcaino, Kevin Kwong, Marilyn Listvan, Dave Schaaf, John Randtke, Marwa Zaatari, Matt Middlebrook, K-J Choi.

Seminar, Forum, Workshop, Debate and Panel Proposals Due Wednesday, Aug. 2, 2023

Chicago, Jan. 20-24, 2024, Indianapolis, June 22-26, 2024, Orlando, Feb. 8-12, 2025, Phoenix, June 21-25, 2025, Las Vegas, Jan. 31-Feb 4, 2026

	Session	Title	Co-sponsor	Champion	Status/Location
	Seminar	Emerging Gas-phase Technologies -- What You Need to Know		K-J	Seminar 48
1	Forum/Debate	Air quality impact: Gas stoves		John Randtke	Chicago
2	Seminar	Ensuring Breathable Air for the World: Filtration Test Methods for Common Gas Phase Contaminants.		K-J	Chicago
3	Seminar	Exploring Gas to Particle Transition/ Brandon Boor and Stevens	TC 2.4	Brian	Indianapolis and beyond
4	Workshop /Forum	Testing Reactive Air Cleaners		Owen	Indianapolis and beyond
5	Seminar	Gases and particles from wild fire		Caitlin/Brian	Indianapolis and beyond
6	Workshop	Review and Evaluation of Standard 145.2 Test Data		Owen	Indianapolis and beyond
7	Workshop	New and improve SSPC 145.2		Matt	Indianapolis and beyond
8	Workshop	Occupant related indoor air pollution (Chang Seo)	TC2.4	Charlene	Indianapolis and beyond
9	Workshop/forum	Particle Loading of Gas Phase Filters- Is it a Problem? (Matt, Paula, Vijay, Brian)	TC2.4, TC5.10	Brian	Indianapolis and beyond
10	Workshop/forum	Breathing in your home		Nick	Indianapolis and beyond

Notes:

Technical Paper Session: These sessions present papers on current applications or procedures, as well as papers resulting from research on fundamental concepts and basic theory. Papers presented in these sessions have successfully completed a rigorous peer review. Forms for written comment are available at each session and sent to respective authors for reply and publication in ASHRAE transactions, if received by a certain date.

Conference Paper Session: These sessions present papers on current applications or procedures, as well as papers reporting on research in process. These papers differ from technical papers in that they are shorter in length and undergo a much less stringent peer review.

Seminar: These sessions feature presentations on subjects of current interest. There are not papers attached to seminars.

Workshop: These sessions enable technical committees and other ASHRAE committees to provide a series of short presentations on a topic requiring specific expertise. These short presentations are provided with an increased emphasis on audience participation and training in a specific set of skills. There are not papers attached to workshops.

Forum: The sessions are "off-the-record" discussions held to promote a free exchange of ideas. Reporting of forums is limited to allow individuals to speak confidentially without concern of criticism. There are not papers attached to forums.

Panel Discussion: Panel discussions can feature a broad range of subjects and explore different perspectives on industry related topics. This session format includes a panel of 3-4 speakers each addressing a facet of the session topic, followed by an interactive discussion lead by the session chair. Panel Discussions may be 60 minutes or 90 minutes in length and will be posted online in the Virtual Conference.

Debate: Debates highlight hot-button issues commonly faced by our membership. Industry experts, either on teams or as individuals, argue opposing sides of an issue, concluding with position summaries and audience feedback. Debate sessions may be 60 minutes or 90 minutes in length and will be posted online in the Virtual Conference.

TRACKS for 2024 WINTER ASHRAE Conference – CHICAGO

1. Fundamentals are the foundation for understanding applications in engineering. Key components of ASHRAE fundamentals include thermodynamics, psychrometrics, fluid and mass flow. This track provides opportunities for papers and presentations of varying levels across a large topic base. Concepts, design elements and shared experiences for theoretical and applied concepts of HVAC&R design are included. Track Chair: Craig Bradshaw

2. HVAC&R systems and equipment are constantly evolving to address the changing requirements of the built environment. Papers and programs in this track focus on the development of new systems and equipment, improvements to existing systems and equipment and the proper application and operation of systems and equipment. Track Chair: Ng Yong Kong

3. Refrigeration & Refrigerants. Refrigeration systems generate and use cold for a range of processes, from food preparation and conservation to vaccine preservation, to long-term protection of fragile ancient inks of historic documents and others. Differences in technologies and equipment, performances, refrigerants, etc., may hide synergies from which both industrial and commercial systems might benefit, also, but not only, from the points of view of reducing direct and indirect GHG emissions. Track Chair: Atilla Biyikoglu

4. Decarbonization & Climate Change. Jurisdictions globally are confronting climate change and recognizing that building decarbonization is an important component in their efforts. The worldwide building sector accounts for about 40% of energy-related carbon emissions and buildings remain a major sector that lacks sufficient mitigation policies. As the standards authority for energy usage in buildings, ASHRAE recognizes that our long-standing initiatives in energy efficiency should be expanded to

building decarbonization. This track seeks papers and programs that demonstrate the industry's decarbonization efforts. Track Chair: Som Shrestha

5. Hydronic Systems . Many different hydronic systems are used in the built environment. This track looks at heating hot water, domestic water, chilled water, condenser water, etc. Track Chair: Joe Chow

6. Ventilation, Indoor Air Quality and Air Distribution Systems. Many different parameters come into play when designing and constructing a finished space. This track looks at how these parameters work with and against each other. Track Chair: Ahmed H Abdel Salam

7. Comfort, Indoor Environmental Quality and Energy Efficiency. ASHRAE Standards 55, 62 and 90 require many things – some of which seem to be in conflict with each other. This track looks at these standards as well as Guideline 10 and their effect on the final project as well as on each other. Track Chair: Kristen Cetin

8. HVAC&R Controls. Determining the best system for a project only goes as far as the control system design that makes all of the elements function together and properly. This track looks at various control strategies and their application within the built environment. Track Chair: Alekhya Kaianathbhatta

9. Project Delivery Methods - There are numerous methods for delivering the final project (design-bid-build, design-build, construction manager at risk, indefinite-delivery/indefinite-quantity, etc.). This track looks at the different methods and how they produce the best results for the project delivery. Track Chair: Ehab Mamdouh Abu Taleb

Panel 3: Best Practices: Testing, Verifying and Commissioning for Indoor Air Quality and Pathogen Mitigation
Monday, June 26 2:30 PM – 4:00 PM EDT

Session Type: Panel Program Level: Intermediate Program Track: HVAC&R Systems and Equipment Location: JW Marriott Tampa Water Street, Tampa Bay 2

Summary: In December 2022, ASHRAE announced development of a consensus-based, code-enforceable indoor air quality (IAQ) and pathogen mitigation standard that will address: Design and operation, Alternative pathways to achieve equivalent clean air and Testing, verification and commissioning. This panel discussion provides an overview of existing and emerging performance-based methodologies for testing, verification and commissioning for IAQ and pathogen mitigation including: Describing gas, solid particle, and aerosol tracer approaches to measuring building performance and estimating risk, Assessing strengths and weaknesses of different measurement approaches, Discussing real world application of different approaches including field execution, data interpretation, and HVAC system performance optimization.

Chair: William Bahnfleth, Ph.D., P.E.

Technical Committee: 2.4 and Co-Sponsoring Committee: 9.6, EHC, SSPC 62.1

1: Use of Synthetic DNA Aerosol Tracers for Estimating Infectious Aerosol Risk in Buildings

2: Tracer Measurements for Building Operations

3: Equipment Considerations for Building Operations

4: Practical Considerations for Building Operation

5: Healthcare Considerations for Building Operation

Speakers: Nicholas Clements, PhD, University of Colorado Boulder, Wade Conlan, P.E., Hanson Professional Services, Elliott Horner, PhD

UL Environment, Linda Lee, DrPH, Linda D Lee Healthcare Consultants, Marwa Zaatari, PhD, D Zine Partners

Seminar 48: Emerging Gas-Phase Technologies: What You Need to Know

Tuesday, June 27 11:00 AM – 12:30 PM EDT

JW Marriott Tampa Water Street, Tampa Bay 7

Summary: The electronic-based air treatment devices are being used in removing gaseous contaminants from the air. The objective of the seminar is to provide the pros and cons of these emerging gas-phase technologies to improve IAQ.

Chair: Kyung-Ju Choi, PhD

Technical Committee: 2.3

1: Performance of in-Duct Electronic Air Cleaning Technologies for the Removal of VOCs

ChangSeo Lee, Concordia University

2: Shattering Myths about Needlepoint Bipolar Ionization Air Cleaners

Kathleen Owen, Owen Air Filtration Consulting

3: Electronic-Based Air Cleaner for Application in Indoor Air Treatment and Small Particle Generation

Michael Sherber, PE, Wellair

4: Determining the Performance of Reactive Air Cleaners: Benefits and Pitfalls

Dean Tompkins, University of Wisconsin