# TC 2.3 Program Subcommittee Meeting – St Louis

Tuesday, 28-June-2015, 12-12:45p Landmark 2

#### Attendees:

Sanjeev Hingorani

Peter Freeman

Paula Levasseur

Lu Liu

Kathleen Owen

Mick Flom

Charlene Bayer

Nick Agopian

Chris Muller

Matt Middlebrooks

Jeff Roseberry

Gemma Ker

Marilyn Listvan

Ashish Mathur

K-J Choi

2017 ASHRAE Winter Conference — January 28 - February 1, 2017 | Las Vegas, NV, www.ashrae.org/lasvegas, 2017 ASHRAE Annual Conference — June 24 - June 28, 2017 | Long Beach, CA Chicago, Jan 20-24, 2018, Houston, June 23-27, 2018, Atlanta, Jan 12-16, 2019, Kansas City, June 22-26, 2019

Las Vegas

- a. Conference Papers are due on July 8, 2016
- b. Seminar, Forum, and Workshop proposals are due August 8, 2016
- c. Confex opens for presentation uploads December 2, 2016
- d. All presentations due online January 2, 2017.

### Long Beach, CA: www.ashrae.org/LongBeach

- a. Conference Papers Abstracts due August 29, 2016
- b. Conference Papers due December 9, 2016

### Program statistics for St. Louis:

Conf. Paper: 71/84, Tech Paper: 28/60, Seminar: 64/116, Forum: 4/12, Workshops: 8/10

Speakers rating below 3.5 will receive letters indicating that if they receive two additional low rating they will be required to provide proof that they have received speaker training before they will be permitted to speak again. 12/Orlando

Conference Papers: The "final" papers undergo a single-blind review are submitted as a PDF and have an eight single-spaced page maximum length. Full Technical Papers submitted for review must be both technically accurate and clearly written. These papers undergo a rigorous double-blind review and can be a maximum of 30 double-spaced pages.

Workshop 1 "Are Rumors of MERV's Death Exaggerated? Sunday, June 26, 2016 at 8:00-9:00am, 227.

Chair: Don Thornburg, Speakers: Bruce McDonald, Anja Coenen

Туре	Title	Co-Sponsor	Chair	When	Due Date
Seminar	What's that smell – is it time to change your Gas Phase Filters?	SSPC62.1, TRG4.IAQP	Chris Muller	Las Vegas	Aug 8
Seminar	Do you know what you are breathing	TC2.4	KJ Choi	Las Vegas	Aug 8
Workshop	Occupant related indoor air pollution (Chang Seo)	TC2.4	Charlene	Las Vegas	Aug 8
Seminar	Snake lons – Can you filter the air with no pressure drop?	TC2.4 SSPS 62.1	Chris Muller	Las Vegas	Aug 8
SSPC 62.1 Seminar	Case studies on using the IAQP on LEED projects	TC 2.3		Las Vegas	Aug 8
Workshop	Review and Evaluation of Standard 145.2 Test Data			Long Beach	
Seminar	Field Application of gas-phase filters		Ashish	Long Beach	
Conference Paper	Interpreting 145.2 Results: Which Filter is Best		Brad Stanley	Long Beach	

### 2017 ASHRAE Winter Conference — January 28 - February 1, 2017 | Las Vegas, NV

Track 1: Fundamentals and Applications

Track Chair: Chuck Curlin

Engineering fundamentals are the foundation to understanding modeling, design, construction and operation of HVAC&R applications. This track provides opportunities for papers and presentations on theories, models, designs and shared experiences for both theoretical and applied concepts.

Track 2: HVAC&R Systems and Equipment

Track Chair: Michael Collarin, Email

Selection of equipment and design of systems is critical for effective HVAC&R operation, and for achieving building operators' goals. The papers and programs in this track will assist designers and building operators in the use of traditional, non-traditional and hybrid equipment and systems; with an emphasis on high performance, sustainable and LEED-certified buildings.

Track 3: Water-Energy Nexus

Track Chair: Gary C. Debes,

# TC 2.3 Program Subcommittee Meeting – St Louis

Tuesday, 28-June-2015, 12-12:45p Landmark 2

The interdependencies between our water and energy systems are clear and are becoming more prominent as development requires the use of more resources while over-use and climate change make some resources scarcer. On the macro level, water is used in all phases of energy production and electricity generation (including renewables); and energy is required to extract, convey and deliver water, and to treat wastewaters prior to their return to the environment. On the micro level, the water-energy nexus is a major consideration for the HVAC&R community in determining equipment and system selection and design as well as building operation. This track will present papers and programs highlighting recent research on this issue as well as technologies and designs intended to reduce the gap between energy and water efficiency.

Track 4: Commercial and Industrial IAQ

Track Chair: Kevin Marple,

Indoor Air Quality is a vital consideration in the built environment. As people spend increasingly more time in industrial and commercial facilities, IAQ is closely linked to occupant comfort, satisfaction, productivity and health. This track will offer papers and programs to inform building owners and operators on the value of improving IAQ.

Track 5: Mission Critical Design and Operation

Track Chair: Carrie Anne Crawford,

As societies become more dependent on mission critical facilities, the design and operation of these facilities has undergone rapid change. This track will present papers and programs which will highlight advances in technologies, controls, design and operation of mission critical facilities to meet their increasing loads while also minimizing their impact on energy/water usage.

Track 6: Effects of Climate Change on HVAC&R

Track Chair: Rocky Alazazi

Climate change will have an increasing effect on the design and operation of the built environment. How does the HVAC&R community design for buildings today that are intended to be highly functional and efficient well into a future where today's standards, codes and practices may not be sufficient to meet tomorrow's climatic conditions? This track seeks papers and programs that will inform the selection of strategies, designs and approaches that will increase building resilience and facilitate climate adaptation.

Track 7: Energy Efficient Industrial Buildings

Track Chair: Corey Metzger, Email:

Industrial facilities often have diffecent HVAC&R requirements than do commercial and institutional facilities. Oftentimes these are a result of the processes that occur within industrial facilities as well as the life safety issues these processes create. This track will present papers and programs that will inform how energy efficiency can be achieved without compromising life safety considerations.

Track 8: Building Operation and Performance

Track Chair: Cynthia Moreno

Modeling has become an essential factor in the design of all aspects of many buildings. Often the operational results of the building do not match the modeled outcome that the owner/operator expected. This can lead to much "finger pointing" or worse. This track will present papers and programs to update modelers, designers, contractors and owners/operators on how to better match building performance with modeled expectations.

Conference Program Chair: Leon Shapiro, Email: leoneshapiro@gmail.com

#### 2017 ASHRAE Annual Conference — June 24 - June 28, 2017 | Long Beach, CA

Track 1: Fundamentals and Applications

Track Chair: Frank Schambach

It's back to the basics! This track provides the foundation for design and construction of HVAC&R components and their application. This track seeks papers and programs of varying levels to provide discussion on theories, models, designs and shared experiences. Topics may range

from fan laws and psychometrics to room air distribution and heat transfer and much more.

Track 2: HVAC&R Systems and Equipment

Track Chair: Jennifer E. Leach

What system and equipment are best for my building? Selection of equipment and design of systems is critical for effective HVAC&R operation and usually has more than one right answer. This track will provide engineers, designers, contractors, owners and building operators the tools to properly design, select and operate traditional, non-traditional and hybrid equipment and systems. The papers and programs within this track may range from basic concept to the technical analysis of system performance.

Track 3: Refrigeration

Track Chair: Vikrant Aute,

The refrigeration cycle is a key component to our daily needs, as it is used for thermal comfort, food storage, creating ice and medicinal needs. There have been numerous improvements and changes to refrigeration systems and refrigerants to accommodate the increased system efficiency. This track seeks papers and programs that address the wide range of applications of refrigerants and their improvements, including variable refrigerant flow applications, refrigerant management and food storage.

Track 4: Building Life Safety Systems

Track Chair: Robert Alan Neely,

Building life safety systems are critical in commercial facilities to protect building occupants from fires and power outages. This track focuses on building egress, fire protection systems, fire alarms, emergency lighting, fire and smoke barriers, and special hazard protection and dscribes key factors to consider when designing these life safety systems. Papers and programs are sought to evaluate design strategies for the life safety systems noted above along with building specific life safety systems, such as gas detection systems, kitchen ventilation and smoke evacuation systems, etc.

Track 5: Controls: Smart Building Systems and the Security Concerns as Technology Emerges

Track Chair: Melanie Derby,

This track will explore smart building systems and how they can be incorporated into commercial facilities to help reduce energy consumption and improve occupant comfort. As these technologies advance and buildings become "smarter," the questions is asked ... "Is my building in threat of a cyber attack?" As owners and designers incorporate more controls system with web and cloud access into buildings, there is a concern that this allows more opportunities for hackers to gain access into sensitive and confidential databases. The programs within this track will explore measures to keep this information safe, while maintaining the flexibility of remote control/access of building systems.

• Track 6: Commissioning: Optimizing New and Existing Buildings and their Operation

Track Chair: Dennis Alejandro,

## TC 2.3 Program Subcommittee Meeting – St Louis

Tuesday, 28-June-2015, 12-12:45p Landmark 2

High efficiency building systems come at a cost, and after the owner's initial investment it is important to verify that the system components are operating as the designer intended. Secondly, the systems need

to be operated properly to reach and maintain the system efficiency levels. This track seeks papers and programs providing lessons learned and recommendations for successful commissioning projects. This track also seeks case studies of existing buildings with a retro-commissioning plan to reduce energy consumption and evaluate the payback of these modifications.

Track 7: Net Zero Energy Buildings: The International Race to 2030

Track Chair: Jason DeGraw,

Title 24 and Architecture 2030 have ambitious goals for all commercial buildings in California to be Net Zero Energy (NZE) by the year 2030. This track will assist the design team and owners to evaluate various systems (including HVAC, building envelope, lighting, domestic water and renewable energy system), design strategies, construction measures and building operation to achieve NZE. The programs within the track will also explore the advancing code and regulations that countries around the world are implementing to reduce building energy consumption.

Track 8: Residential Buildings: Standards Guidelines and Codes

Track Chair: Kimberly Pierson,

ASHRAE is known for its standards and design guidelines and their evolution to improving the built environment and its systems. This track will inform designers, contractors and owners of the current requirements and upcoming changes to ASHRAE's low-rise residential guidelines: Standard 90.2, Standard 62.2 and Guideline 24. This track also seeks papers and programs for cutting-edge residential systems and the incorporation of ASHRAE standards in the design.

Track 9: Research Summit

Track Chair: Ann Peratt,

The fifth annual Research Summit brings together distinguished researchers to present the latest research results. Papers are requested on the following topics: 1) building science research that address the performance of buildings systems and occupant usage and 2) renewable energy research and its impact as we move towards net zero energy buildings.

Conference Program Chair: Ann Peratt,