#### Welcome and introduction of attendees

#### **Attendees:**

Brian Krafthefer	Lu Liu	
Paula Levasseur	Ashish Mathur	
Charlene Bayer	Kyung-Ju Choi	
Matt Middlebrooks		
Marilyn Listvan		
Brad Stanley		
Kathleen Owen		
Gemma Kerr		

Meeting opened with introduction and breakfast

The action items from the Atlanta meeting were reviewed. The following actions were continued to the St. Louis meeting:

- Kathleen Owen will check the research meeting minutes for new ideas generated at the meeting and forward those ideas to Planning
- Marilyn Listvan and Matt Middlebrooks will conceptualize a slide presentation on TC2.3 activities for presentation to Chapters.
- KJ Choi mentioned an ASHRAE TC2.3 seminar "back to basics" that he will try to reclaim for the group
- Brian Krafthefer will check ASHRAE's 10 yr plan to see if it provides ideas for 2.3 plan
- All members should submit 1 paragraph on what we want from TC2.3 and where it should be focusing
- With ISO-11 being important to TC2.3, is there an ISO strategic plan? Paolo Tronville will send information.
- US 142 may have a 5 year plan. Gemma Kerr, Paolo Tronville, and Matt Middlebrooks will try to obtain information on this.
- Chang Seo and Ashish Mathur will talk with TC2.1 to see how TC2.3 can work with them in the area of odor and gas-phase filtration.
- Matt Middlebrooks expressed that information should be compiled on the chemicals that make up particular odors.
- Marilyn Listvan to find out if Journal will accept white papers. Gemma thought that the appendix in GPC27P odors would make a start for a white paper. On odor recommendations

For the roadmap discussion, Charlene had prepared a document on different research area that are currently on-going and potential future items. This is included in the minutes.

Other areas of discussion involved:

- Brian will provide a different format for roadmap for review by the committee
- Kathleen mentioned that planning needs to get more input from EHC
- In a discussion of research for gas-phase in-room air cleaners, Kathleen and Gemma had idea of looking at other countries test methods that are being developed. They will bring a summarization of the Canadian program to the next Planning meeting along with recommendations on what TC2.3 should do. Gemma also mentioned ISO is thinking about gas-phase testing in large chamber.
- Brad brought up a calculation method for Energy/CAD for gas-phase filtration that was put forth in GPC35P. He will send this to TC2.3. KJ had question on how pressure-drop applies in gas-phase pressure drop and how to deal with this pressure drop in these calculations. Should research include development of a particle test for a gas-phase filters? This would be a joint 2.3 and 2.4 project and could potentially look at using different pre-filters with a gas-phase filter. RTAR put together by next meeting. An RTAR will be put together by the next meeting. The group drafting the RTAR will be Brian, Matt, and Brad. The RTAR concept (pre-RTAR) will be sent to Kathleen who will send on to Pawel.
- Everyone is to review Charlene's research list and send comments
- Discussion of Maira's IAQP project was tabled until the next planning meeting
- Marilyn discussed the potential of white papers and mentioned that there were sponsored white paper resources & publications on the ASHRAE web site. Search for suppliers and white papers link on site
- There was a discussion about switching the time of the standards subcommittee meeting. This will also be brought up at the TC2.3 and TC2.4 main meetings.
- Discussion of Education portion of roadmap
  - o For the area of how TC2.3 can help manufactures and contractors with how to improve their usage of gas-phase filtration perhaps a guideline for this. Also there was discussion of a white paper summarizing Chapter 46 in the Applications Handbook. Ashish and Matt will look at white paper on the usage.
  - Also what can be done on "How to choose gas phase filter"?
- TC2.3 should attend YEA mixer to solicit YEA members for TC2.3 that might be interested in gas phase filtration Guidelines needed
- There was a discussion on two new MTGs on swimming pools and occupant behavior and what TC2.3's role should be. This was deferred to the main TC for discussion.
- One of TC2.3's goals should be how to help people (from a health, comfort, and odor perspective). Committee members were tasked with thinking about research, white papers, or education that could deal with this.
- It was felt that there should be greater information exchange globally on gas-phase filtration.
- There was a discussion of sensors for gas-phase filtration and perhaps a white paper could be generated for this.

• EHC is looking for articles for the new IAQ column for Journal. Those interested should talk to Larry Schoen.

A reminder of action items will be sent out in March



TC2.3 Roadmap						
Rank	Topic/Title	Related Past or Ongoing ASHRAE projects	Research Gap Identifications	ASHRAE Strategic Plan Fit	Champion( s)	Status
1	Validation of gas-phase air-cleaner performance test method (Standard 145.2) by laboratory testing of commercially available filtration devices.	1. Std 145.2	Removal of gaseous contaminants: Validation of Std 145.2	Adapt Goal: Work to translate science and technolog y into practical tools and resources that drive effective building design, operations and managem ent	Gemma Kerr	Work Statement WS1720 submitted to RAC
2	1579-WS: Testing and Evaluation of Ozone Filters for Improving IAQ		Removal of gaseous contaminants		Matt Middlebrook s	Work statement needs to be revised and completed
3	1755 WS: Impact of gaseous contamination and high humidity on the reliable operation of information technology equipment in data centers		Nature of gaseous pollutants: Determination of critical humidity range in data centers		Chris Muller	TC9.9 Co- sponsoring . Should go out for bid in Fall 2015.
4	Determination of the Exhaust air Contaminant Transfer Ratios (ECTR) for selected typical		Removal of gaseous contaminants:		Nick Agopian	RTAR submitted by TC5.5 with TC2.3 co-sponsor

# ASHRAE TC 2.3 Planning Subcommittee Meeting Minutes

Tuesday, 26-January, 2016, 6:30 – 8:00 am Orlando, FL, Orlando Hilton, Clear Lake

			Tiariao Tilitori, Cicar I		
	exhaust airborne contaminants while using commercially available air-to-air energy recovery ventilation (ERV) devices or systems in HVAC systems applications				
	Demand-based air-cleaner operation to save energy		Removal of gaseous contaminants:	Brian Krafthefer	RTAR in progress
	Using specially treated textiles to reduce odors		Removal of gaseous contaminants:	Arsen Melikov	RTAR needs to be written - not started
	Bipolar lonization (process uses needlepoint technology to produce both positive and negative ions) performance test method for VOC removal and testing a variety of commercially-available ionization devices	Std 145.2	Removal of gaseous contaminants:	Scott Sherwood	RTAR needs to be written – in progress
	IAQP field studies	ASHRAE 62.1	Removal of gaseous contaminants:	Marwa Zaatari	RTAR needs to be written - not started
	The effects of filtration on health	EHC Position Paper	Removal of gaseous contaminants; & Effect on living things	Dean Tompkins	RTAR needs to be written - not started
Need s to be	In room air- cleaners		Removal of gaseous contaminants; &	Kathleen Owen	RTAR needs to be written

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		,	Tiariao Tilitori, Cicar I		
discu ssed			Effect on living things		<ul><li>not</li><li>started</li></ul>
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			gaseous	Zhang	proposed
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			SVOC emissions		Atlanta—
			change with		needs to

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Bio-effluent emission rates to assist IAQP calculations	temperature Nature of gaseous pollutants:	Chang-Seo Lee	written RTAR needs to be written
Gas Phase emissions from 3D printeres	Nature of gaseous pollutants:	Barney Burroughs	RTAR needs to be written.

