

MEETING MINUTES
TC 2.3 - Gaseous Contaminants/Removal Equipment
Standards Subcommittee Meeting
Monday, January 25th 2016, 6:00-8:00 p.m.
Room Clear Lake, Hilton Orlando, Orlando, FL, USA

The meeting was called to order at 6:05 pm by Chair Paolo Tronville. Present were:

Name

- 1) Paolo Tronville
- 2) Kyung-Ju Choi
- 3) Mick Flom
- 4) Gemma Kerr
- 5) Kyle Kisebach
- 6) Brian Krafthefer
- 7) Kevin Kwong
- 8) Marilyn Listvan
- 9) Lu Liu
- 10) Ashish Mathur
- 11) Matt Middlebrooks
- 12) Kathleen Owen
- 13) Mohamed Yassein

Attendees agreed that 2:15-4:15 pm would be a potential alternative time to hold this meeting. Only one person had a conflicting meeting at this time.

1) Update on standards within scope of ASHRAE TC 2.3

- a) GPC 27P “Procedures for measurement of gases in indoor environments” – *Gemma Kerr*
 - The first Public Review is complete with all comments addressed. The revised draft was voted out for a second Public Review. If there are no new comments, it will be published in June. Chair Bill Lull sent an email asking for an opinion on two issues:
 - (1) Possible new guideline, *Making particulate and gaseous contaminant investigations in commercial buildings*. The committee members were okay with the subject. However, no-one was willing to take the lead on forming a guideline committee, and only two people were willing to participate. Paolo suggested that another option might be to include extra material when the guideline is revised in 3-5 years’ time; and
 - (2) Reviving GPC 17 *Sampling of Airborne Particle Concentrations in Commercial and Residential Buildings*. This idea was turned down by TC 2.4 Standards because there was no volunteer willing to take charge of it.
- b) ASHRAE Std. 145.1-2015 “Laboratory Test Method for Assessing the Performance of Gas-Phase Air Cleaning Systems: Loose Granular Media” – *Matt Middlebrooks*
 - The committee has approved a change request related to background concentrations of formaldehyde and ozone challenge gases.
- c) ASHRAE Std. 145.2-2011 “Laboratory Test Method for Assessing the Performance of Gas-Phase Air Cleaning Systems: Air Cleaning Devices” - *Matt Middlebrooks*
 - The standard is due to be republished this year. Because of the difficulty of performing the test using formaldehyde, formaldehyde was dropped as a mandatory challenge gas. The text for this change is in process of preparation and will be voted on. The standard is now considering a major change to include reactive technologies in the scope of the standard. This will involve minor

equipment changes and detailed procedural modifications. Possibly research will also be needed before completion of the revision.

2) ASHRAE SPCs/SSPCs/TCs/TGs/TRGs activities

- a) TC 2.4 “Particulate Air Contaminants and Particulate Contaminant Removal Equipment”
 - i) GPC35P “Method for Determining the Energy Consumption Caused by Air-Cleaning and Filtration Devices – *Brian Krafthefer*
 - The GPC is submitting a work statement for a project to develop a new loading aerosol that would give more realistic energy use data for particle filters. While waiting for results from this project, they will continue to write the guideline. Methods for calculating energy use of separate particulate and gas filters have been developed, but it is not clear at present how to deal with filters that remove both particles and gases.
 - ii) SSPC 52.2 “- General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size” – *Gemma Kerr*
 - Three addenda will be published February. Republication of the standard is expected later this year after resolution of the remaining addendum. There was discussion about how this year’s publication of ISO 16890 Parts 1-4 will impact the future of 52.2. Development of a new standard, 52.3, was discussed. This would evaluate filter performance based on the mass of particles removed, but the method is different from that of 16890. RTAR 1784, the round robin testing research project using the revised 52.2, has been accepted by RAC, and a team was appointed to write the project work statement.
- b) TC 2.9 “Ultraviolet Air and Surface Treatment” – *Matt Middlebrooks*
 - i) SPC 185.1 “Method of Testing UVC Devices for use in air handling units or air ducts to inactivate airborne microorganisms”
 - The standard has been published. There was no meeting this time as SPC 185 is in the process of moving to become an SSPC.
 - ii) SPC 185.2 “Method of Testing Ultraviolet Lamps for Use in HVAC&R Units or Air Ducts on Irradiated Surfaces”
 - This standard has been published
- c) TC 9.11 “Clean Spaces” – *Matt Middlebrooks*
 - Matt did not attend. There is not much gas phase activity but there is a guideline that contains some gas phase information.
- d) SSPC 62.1 “Ventilation and IAQ High Rise Buildings” – *Brad Stanley*
 - There was no report.
- e) SSPC 62.2 “Ventilation and IAQ Low Rise Buildings” – *Stephany Mason*
 - There was no report.

3) Information Exchange

- a) AFS – *KJ Choi*
 - The Oil, Gas and Chemicals Filtration and Separations Expo will be held at the Houston Marriott Westchase May 9-11, 2016.
 - The World Filtration Congress will be held at the Taipei International Convention Center, Taipei, Taiwan April 11-16, 2016.
 - The Fall Conference will be held October 24-26, 2016 in San Diego.
 - The Filtech conference and exhibition will be held October 10-14, 2016 in Cologne, Germany.
- b) ASTM D22.05 “Air Quality” SC “Indoor Air” – *Stephany Mason*
 - There was no report.
- c) ASTM D28.04 “Activated carbon” SC “Gas Phase Evaluation Tests” – *Paula Levasseur*
 - i) D6646 - 03(2008) “Standard Test Method for Determination of the Accelerated Hydrogen Sulfide Breakthrough Capacity of Granular and Pelletized Activated Carbon”

- There was no report.
 - d) ISO/TC 142 “Cleaning Equipment for Air and Other Gases” /WG8 “Gas-phase air cleaning devices” – *Matt Middlebrooks*
 - i) ISO/NP 10121-3 “Test method for assessing the performance of gas-phase air cleaning media and devices for general ventilation — Part 3: Classification system for treatment of make-up air”
 - There was a web conference in November to discuss concepts. Standard 145 is also discussing a classification system and will communicate with WG 8 on this matter.
 - ii) US Technical Advisory Group (TAG) to ISO/TC 142
 - There was no report.
 - e) ISO/TC 146 “Air quality” /SC6 “Indoor air” – *Stephany Mason*
 - There was no report.
 - f) ISO/TC 205 “Building environment design” – *Stephany Mason*
 - i) ISO 16814:2008 “Building environment design - Indoor air quality - Methods of expressing the quality of indoor air for human occupancy”
 - this is related to ASHRAE standard 62.1.
 - g) ISO/TC 209 “Cleanrooms and associated controlled environments” (see IEST) – *Matt Middlebrooks*
 - i) ISO 14644-8:2013 “Classification of airborne molecular contamination” (under revision)
 - There was no report.
 - ii) ISO 14644-10:2013 “Cleanrooms and associated controlled environments - Part 10: Classification of surface chemical cleanliness”
 - There was no report.
 - h) USGBC – *Charlene Bayer*
 - They are requesting SSPC 145 to increase the scope of 145.2 to include reactive media air cleaners because USGBC requires use of this standard to test this type of air cleaner.
 - i) CEN/TC 156 “Ventilation for buildings”
 - i) prEN 16798-3:2014 “Energy performance of buildings - Part 3: Ventilation for non-residential buildings - Performance requirements for ventilation, air conditioning and room-conditioning systems” (revision of EN 13779):
 - EN 13779 is being split into two parts for revision.
 - ii) prCEN/TR 16798-4:2015 “Ventilation for non-residential buildings — Performance requirements for ventilation, air conditioning and room-conditioning systems (Revision EN 13779) –Technical Report
 - This is also part of the EN 13779 revision.
 - j) Other ISO TCs (and also CEN, ITRI, etc.)
 - There was no report.
- 4) There was no new business.
- 5) The meeting was adjourned at 7:20 pm.