

**MEETING MINUTES**  
**TC 2.3 - Gaseous Contaminants/Removal**  
**Equipment Standards Subcommittee Meeting**  
Friday, Jan. 21, 2022, 2:00-3:00 PM EST

Present: Michael Sherber (Chair), Marwa Zaatari (TC 2.3 Chair), Gemma Kerr, Caitlyn Naske, Christine Sun, Kathleen Owen, John Randtke, KJ Choi, Matt Middlebrooks, Mengja Tang, Mick Flom, Rami Alkhalil, Scott Paris, Stephen Trent, Tori Binz, Marilyn Listvan, Wane Baker, Glenn Brinckman, Gabrielle Davis, Chris Hsieh, Bob Burkhead, Chrystal Jolliffe, Stephanie Licht, Kevin Kwong, Henry Greist.

- 1) [Attendee sign-in.](#)
- 2) [The ASHRAE Code of Ethics Commitment was read to attendees.](#)
- 3) Guideline 27-2019 Update Review
  - a) Guideline 27-2019
  - b) Staff review of draft Guideline 27-2019

[Michael Sherber said that he had received notice from Mark Weber of Standards Staff that TC 2.3 needed to recommend revision or reaffirmation of Guideline 27-2019 by December 2022 so the recommendation can go to SRS at the January 2023 Winter Meeting. Because the staff review of the draft Guideline 27-2019 identified more than twenty out of date references this bars reaffirmation of this guideline, and a revision is necessary.](#)

[Therefore, it was agreed that Michael Sherber will bring up the issue of revising Guideline 27-2019 during the full TC 2.3 committee meeting on February 1<sup>st</sup> as part of his Standards Subcommittee report, and that we recommend TC 2.3 revise Guideline 27 and appoint a project committee to perform the revision.](#)

- 4) Update on standards within scope of ASHRAE TC 2.3
  - a) ASHRAE Std. 145.1-2015 "Laboratory Test Method for Assessing the Performance of Gas-Phase Air Cleaning Systems: Loose Granular Media" [Tony Abate – no report.](#)
  - b) ASHRAE Std. 145.2-2016 "Laboratory Test Method for Assessing the Performance of Gas-Phase Air Cleaning Systems: Air Cleaning Devices" – [Tony Abate – no report.](#)

[Matt Middlebrooks said that RP 1838 will be wrapping up soon.](#)

- 5) **ASHRAE SPCs/SSPCs/TCs/TGs; TRGs activities**
  - a) TC 2.9 "Ultraviolet Air and Surface Treatment" -[Ashish Mathur](#)
    - i) SPC 185.1-2015 "Method of Testing UVC Devices for use in air handling units or air ducts to inactivate airborne microorganisms" - [Ashish Mathur - no report.](#)
    - ii) SPC 185.2-2014 "Method of Testing Ultraviolet Lamps for Use in IIVAC&R Units its Air Ducts on Irradiated Surfaces" - [Ashish Mathur – no report.](#)
    - iii) SPC 185.3 "Method of testing in-room devices and systems for microorganism removal or inactivation in a test chamber" - [Kathleen Owen said that SPC 185.3 is moving along well.](#)
  - b) SSPC 62.1 "Ventilation and IAQ High Rise Buildings" – [Michael Sherber said that Guideline 42P is going to second public review in mid-February.](#)
  - c) SSPC 62.2 "Ventilation and IAQ Low Rise Buildings" - [Marwa Zaatari said SSPC 62.2 is working on an IAQ Procedure for non-high-rise residential buildings. PM2.5, formaldehyde,](#)

NO<sub>2</sub> have been suggested as contaminants of concern.

## 6) Information Exchange

- a) AFS - KJ Choi informed us of two upcoming AFS events, the 13<sup>th</sup> World Filtration Congress and FiltCon 2023. Their details are:
  - i) 13<sup>th</sup> World Filtration Congress, San Diego, CA, Oct. 5-9, 2022
  - ii) FiltCon 2023, Louisville, KY, May 1-3, 2023
- b) ASTM D22.0S "Air Quality" SC "Indoor Air" – **no report.**
- c) ASTM D28.04 "Activated carbon" SC "Gas Phase Evaluation Tests" – **no report.**
  - i) D6646-03 (2014) "Standard Test Method for Determination of The Accelerated Hydrogen Sulfide Breakthrough Capacity of Granular and Pelletized Activated Carbon"
- d) ISO/TC 142 "Cleaning Equipment for Air and Other Gases" – *Kevin Kwong spoke about the reorganization of Working Group 8 and Working Group 11.*
  - i) Working Group 8: Gas Phase Air Cleaning Devices and Media
    - (1) ISO 10121-3 "Test methods 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"
    - (2) Some laboratory testing still needs to be completed. The group is working on finalizing ISO 10121-3 for the FDIS ballot.
    - (3) ISO/PWI 23743s: Testing of gas phase air cleaners for improving perceived indoor air quality
  - ii) Working Group 11: Portable room air cleaners for comfort applications (Joint between ISO/TC 142 and IEC/TC 59)  
IEC/TC 59 was restructured to a subcommittee (SC59N) of TC 59 on November 3, 2021. SC59N approved unanimously the creation of 5 Working Groups (WGs) and one Maintenance Team as follows:
    - (1) WG 1 - Reduction of particles  
To develop performance test method standards for reduction of particles by household and similar electrical air cleaning appliances
    - (2) WG 2 - Reduction of chemical gases and ozone  
To develop performance test method standards for reduction of chemical gases by household and similar electrical air cleaning appliances. **Limonene and formaldehyde will be the challenge gases.**
    - (3) WG 3 - Reduction of microorganisms  
To develop performance test method standards for reduction of microorganisms by household and similar electrical air cleaning appliances.
    - (4) WG 4 - General characteristics  
To develop guidelines for and management of Round Robin Testing, noise measurement (with TC 59/WG 2), consumer information on sensor communications, measurement of air cleaning appliances in automatic mode, and measurement of electrical power/energy
    - (5) WG 5 - Special types of air cleaners  
To develop performance test method standards for special use air cleaning appliances, including fresh-air, air cleaning appliances, passenger vehicle portable air cleaning appliances and robotic/mobile air cleaning appliances
    - (6) Maintenance Team (MT) 6 - Maintenance of IEC 63086-1  
To maintain IEC 63086-1, Household and similar electrical air cleaning appliances -

## Methods for measuring the performance - Part 1: General requirements

- e) CEN/TC 15 6 "Ventilation for buildings" - *Paolo Tronville* – no report.
    - i) EN 16798-3:2017 "Energy performance of buildings - Ventilation for buildings - Part 3: For non-residential buildings - Performance requirements for ventilation and room air-conditioning systems (Modules M5-1, MS-4)" (Supersedes EN 13779:2007);
    - ii) CEN/TR 16798-4:2017 "Energy performance of buildings - Ventilation for buildings - Part 4: Interpretation of the requirements in EN 16798-3 - For non-residential buildings - Performance requirements for ventilation and room-conditioning systems (Modules MS-1, MS-4)"
      - (1) It contains information to support the correct understanding and use of EN 16798-3.
  - f) <http://www.cluster-essc.eu/> - The European Sensor-Systems Cluster (ESSC). No report.
  - g) AHAM AC-4 – Kevin Kwong said that AHAM AC-4 is close to completion. However, there is a lengthy review process before it is approved. All five gases must be tested for certification. The gases that are being tested are formaldehyde, toluene, n-heptane, d-limonene, and ammonia. Byproducts are mentioned but are not required to be tested for. Ammonia and formaldehyde are to be tested separately. The other three gases can be tested together.
  - h) CRRA - Chris Muller – no report.
- 7) New business – none.
  - 8) Any other business – none.
  - 9) Adjournment – the meeting was adjourned at 2:40 PM.