

Agenda
TC 2.3 - Gaseous Contaminants/Removal Equipment
Research Subcommittee Meeting
Monday, June 23 4:30-6:30
Sheraton Phoenix Downtown, Camelback A (Level 2)

1 Call to order

ASHRAE Value Statement:

In ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and shall avoid all real or perceived conflicts of interest. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We celebrate diverse and inclusive communities, understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and the communities our Society serves. We respect and welcome all.

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Core Values - <https://www.ashrae.org/about/ashrae-s-core-values>

Diversity Statement - <https://www.ashrae.org/about/diversity-equity-and-inclusion-dei>

Reminder: Recording (Audio, Video, Screenshots) of ASHRAE meetings, including online meetings, is strictly prohibited.

2 Introductions

3 Review of Minutes of Summer Meeting

4 Chair Comments- Research Chair Breakfast

5 RAC report (Liaison TC 2.3- Chris Gray)

6 Presentation on RP-1869 from Jim Dennison (~10 min)

7 Active Projects:

- a. **RP-1869:** Evaluation of Indoor Air Contaminants with respect to Development of a Revised Indoor Air Quality Procedure (IAQP) Design Compound and Design Target Lists for Standard 62.1. (Co-sponsored: 62.1 & TRG4). Champion: Gemma Kerr. WG: James Dennison, Dean Tompkins, Marwa Zaatari, Hoy Bohanon, Wayne Thomann
[Gemma- On time and on budget. Task 1 complete, Task 2 reviewing papers and selecting those with data to use 90% complete. 300+ papers reviewed, 8000 data points. Some of the VOCs don't have many data points. Project is proceeding.](#)
- b. **RP-1928:** Combination duct and chamber test. Chrystal Jolliffe champion, Gemma, Cheng-Seo, and Joe Pessa. (TC 2.9 lead, Co-sponsored: 2.4 and 2.3)
[Awarded to LMS, PI Kevin and Kathleen. Kevin- 2 year project started in April. What can be done to improve Chamber+ duct test standards 185.5 and 145.4. Phase 1 complete. KCl used for testing.](#)

- c. **1895-TRP** Effect of particles on loading on gas filters, with possible interest in looking at other combinations of technologies in the same air cleaner. (Co-sponsors: TC 2.4 and GPC 35)
Went out for bid in March 2025, waiting for PES to review bids. PES- Brian, Paula, Vijay
- d. **1913-TRP** Study of the Corrosion Impact on Information Technology Equipment in Data Centers Located in Coastal Regions with High Sea Salt Concentration (TC 9.9 lead, Co-sponsored: TC 2.3).
Chris Muller is the PES chair, target is to have bids reviewed by end of Feb.

8 Work Statements and RTARs

- a. ~~**1846-RTAR**~~**(resubmitting as RTAR):** Real Time Small sensors/ affordable: Christopher Vizcaino (new champion), Brian K., Fuoad Parvin, Thad Ptak, Jeff Roseberry, Sanjeev H., Jensen Zhang, Jordan Clark. Members interested Tony Abate, Sanjeev
Dropped from RAC, will need to be resubmitted as a new RTAR. Chirs V has updated, Chris Grey has approved.
TC 2.3 re-voted in May, RAST will vote in Phoenix, IAQ-MD vote?
- b. **1858-WS:** sVOCs including how SVOC emissions change with temperature - Sanjeev*, Jianshun Zhang, Kevin Kwong, Kathleen Owen
Work statement was re-written; comments came back and need to be resolved.
Sanjeev has the WS needs help with the cost/ budgeting, then it will be ready to submit. (this will be dropped if not action) Plan is to submit before August TC 2.3 and TC 2.4 will need to vote
May 2025- Returned with comments
- c. ~~**1931-RTAR (status?)**~~ Determination of the CO₂ and Aerosol Generation and Metabolic Rates of Occupants for Selected Indoor Activities (from TC 2.1)
Recent draft does not have TC 2.3 as a co-sponsor. Removing from list.
- d. **1976-RTAR (writing WS)** Ozone Removal Efficiency and Generation of Byproducts on VOC-Loaded Gas-Phase Air Cleaning Devices. Menjia Tang – Champion. Volunteers to work with Menjia on WS. Jensen
RAC accepted with comments. Menjia is looking for help writing WS. Kathleen, Gemma
One comment- identify co-sponsors (industry)
Action needed: Menjia needs members for PES and PMS

9 Proposed RTARS and other work:

- a. The Effects of Filtration and Air Cleaning on Health & Safety. Caitlin Naske Champion. Nick Agopian, Lexuan Zhong, Kathleen, Sanjeev, Paula, Brent S.
Caitlin- No work has been done for several meetings- is there still interest in topic/ DALYs?
Sent the draft to Henry G will look at topic and see if anything worth pursuing (Sent XX)
- b. Acceptable VOC types and concentrations for inclusion in multi contaminant test gases Gemma champion, Kathleen, Ashish and Paula.
 - i. Gas mixture vs individual gas results, how to interpret data with competition
 - ii. Gemma did background work and getting ready for RTAR- how can we get something that is useful for 145.2. Kathleen and Caitlin, Jensen
- c. Adsorption and emission from particulates in filters, Brian had done a lit search long ago with only a few, maybe newer studies/ research. Caitlin to champion. Masih will help, Brian,

Marilyn

- d. “Impact of Age on Air Cleaning Devices” Cleaning secondary products from the air- 2.4 lead John Randtke*, Marwa, Jianshun, Brian K, and Jeff Roseberry interested in helping. [John is drafting. Looking for 2.3 co-sponsorship.](#)
- e. PFAS is it a particle or a gas, is carbon effective in removing it in air, technology is already used in water, used in a lot of pan and cookware emerging contaminant
Next step: Brian will champion- lit search Chris V. and Paula can help (if you find an article send to Brian) [Currently compiling papers and information for lit search RTAR. This is currently a hot topic, may be more a 2.4 topic due to it being SVOC.](#)
[There is now a Basecamp folder- send all PFAS references to Caitlin to put in folder](#)
- f. New Ideas
 - i. 9.13 Space- looking at gases in spaceships and on the moon and mars/ space

10 Adjourn: