

ASHRAE MEETING MINUTES
June 2022 Toronto, Canada Meeting
TRG4.IAQP - Indoor Air Quality Procedure Development

Sunday, June 26, 2022
6:00 to 8:00 PM EDT

Meeting Location – Hybrid, Sheraton: Wentworth (2) & WebEx

Link: <https://events.rdmobile.com/Asset/Download/8660995>

Details: Meeting ID: 2335 749 6201

Passcode: TRG4

Join by phone: 1-866-299-4153 USA Toll Free

Access Code: 2335 749 6201

1. [Call to order](#). Introduction of guests and members

Meeting called to order at 6:07 PM EDT

2. Reminder of [Code of Ethics](#):

“Commitment to the ASHRAE Code of Ethics – In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests. (See full Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>.)”

3. [Membership](#)

- a. Voting Members Present (Quorum Established?)

- i. [Quorum: \(7 of 11\) voting members present](#)

First Name	Last Name	Membership	Virtual/In-Person
Nick	Agopian	VM	Yes
Dean	Tompkins	VM	No
Tony	Abate	VM	Yes
Mattea	Brown	VM	No
Richard	Fox	VM	No
Brian	Hafendorfer	VM	Yes
Chris	Hsieh	VM	No
Gemma	Kerr	VM	Yes
Caitlin	Naske	VM	Yes
Kathleen	Owen	VM	Yes
Lexuan	Zhong	VM	Yes

- b. Other attendees

- i. Corresponding Members: Charlie Seyffer, Elliott Horner, Henry Greist, Jim Dennison, John Randtke, Victoria Binz
 - ii. Provisional Corresponding Members: Alex Frechette, Charlie Waddel, Chris Muller, Nitin Naik, Vikram Pratap
 - iii. Guests: Dan Mason, Glenn Brinckman, Hanjong Yoo, Michelle Erickson, Scott Parris, Scott Sherwood, Vance Payne (TAC Section Head)

- c. Development of new voting members

- i. Introduction of new voting members; starting July 1, 2022
 - ii. Call for potential new voting members
 - iii. Call for potential new corresponding members
 - iv. **Action Item:** *Please update bios online*
- 4. Approval of Meeting Minutes
 - a. TRG4IAQP Winter Las Vegas, NV Sunday January 30, 2022
 - i. Brian makes motion Tony seconds, voice vote taken to approve meeting minutes, all in favor, meeting minutes approved. 6-0-0-CNV
- 5. Chairs Breakfast Report.
 - a. Chairs breakfast Sunday June 26, 2022, 7:00-9:00 AM
 - i. Revisions to MOP to be more tailored to TGs
 - ii. Outgoing TAC chair parting message emphasized staying true to the core of ASHAE's roots and values
 - iii. Gemma reported that ASHRAE is looking to improve hybrid meetings
 - 1. Goal to ensure members joining virtually have the same experience as those in person
 - 2. ASHRAE is forming a group to get feedback on how they can improve
- 6. Liaisons
 - a. **Section Head (Vance Payne)**
 - i. If the TRG4 would like to take on becoming a TC recommends pulling together a small group to create a document including the TPS and strong reasoning and evidence as to why this change should be approved
 - 1. Include what kind of research the committee would like to take on that other TCs currently are not working on
 - ii. Although in the past ASHRAE was looking to merge TCs it was those that were closely aligned, and would not impact the move for us to become a new TC
 - b. **Liaison (Marwa) - SSPC 62.1 – Brian H reports**
 - i. Currently a continuous maintenance proposal out for outdoor emergency events
 - ii. Contaminants generated in the space while cleaning
 - 1. Currently there is nothing in the standard addressing cleaning supplies
 - c. **Liaison (Nick) - SSPC 62.2**
 - i. Continued talk about unvented combustion devices and generated gaseous contaminants
 - 1. Currently much of the focus is on NO2, however other contaminants of concern need to be discussed and addressed
 - ii. Work to develop and IAQP for 62.2 continues
 - 1. Committee is looking at focusing on PM 2.5, group is concerned that using the complete list of 62.1 design compounds will deter developers
 - 2. Hoping to have effort completed in the next few years
 - 3. **Looking for volunteers from the TRG to help; Gemma, Caitlin, Jim Dennison, Chris Muller**
 - d. **Liaison (Tony) - SSPC 145.2/145.3 (RP1838)**
 - i. 145.1 was revised to update definitions
 - 1. Gemma worked to harmonize the definitions across the different test methods
 - 2. Approved for PPR
 - ii. 145.2 was updated to reflect the research from RP1838 to include electronic air cleaners
 - 1. Will likely move to PPR soon
 - iii. 145.3 a new standard, headed by Caitlin, is in the works

1. Proposed TPS is a combination chamber and duct test method with recirculation and could include constant or periodic contaminant exposure, still in the early phases
2. Looking to get TPS approved by PPIS in Toronto
3. Working closely with RAST group to minimize potential overlap

e. TG2.RAST Reactive Air and Surface Treatment (Kathleen Owen)

- i. Interim virtual meetings have been helpful in accelerating progress in the group
- ii. Test method will have a chamber and side duct and will address particles and bioaerosols
 1. Interest in having the method also address surface kill
- iii. Looking to get TPS approved by PPIS in Toronto
 1. RAST and 145.3 TPSs will be presented back-to-back

f. Liaison (Tony)-AHAM AC5 (Chamber Test)

- i. AC5 is a chamber test for microbial reduction with the use of household room type units
- ii. Shows some similarities with work being done on test method 185.3
 1. 185.3 group is working to make sure that the language does not conflict with AC5; changed the test method to be for commercial industrial devices whereas AC5 focuses on residential
- iii. AC5 does not include a byproducts test currently

g. New Liaisons?

7. [Research](#)

Updates on:

- a. 1869-WS (Work Statement): Evaluation of VOCs with Respect to Development of Revised Standard 62.1 Indoor Air Quality Procedure (IAQP) Design Compounds and Design Limits
 - i. Update in Toronto:
 1. Gemma did not send out the WS for those who volunteered to help review it in Las Vegas and apologizes.
 2. 1869-WS was submitted in time for the RAC March 15th deadline
 3. Only a few comments needed to be addressed
 - a. Bill H. requested that the WS give a budget value and not a range
 4. The comments were addressed, and Bill stated that it is ready to go out to bid/accepted to go to bid
 5. COVID 19 has impacted ASHRAE's budget therefore there is a backlog of projects (could be 6 months to a year before any further progress happens)
 - a. Originally funding was happening on a first in first out system, however with this has changed and priority is being awarded to relevant projects that enforce ASHRAE's core initiatives
- b. RP-1838 (Research Project): Emerging gas-phase electronic filtration technologies and ASHRAE 145.2 test standard
 - i. Update in Toronto:
 1. Major RP 1838 outcome were the revisions to standard 145.2 based on the recommendations from the project
- c. Update on RTAR-1935 from TC 2.3 "Effects of Increased Use of Sanitation Products on Indoor Air Quality"
 - i. Update in Toronto:
 1. 1935-RP, need to confirm name of the RTAR
 2. **Nick will reach out to Chang-Seo for an update on the RTAR prior to Atlanta meeting**

8. Old Business Discussed

- a. The IAQP addresses PM2.5 and Design Compounds (DCs or VOCs)
 - i. Support for the development of an RTAR to fill in the information gaps for things not included in WS 1869 such as bioaerosols, ozone, PM, inorganics, CO2, and SVOCs in buildings
 - ii. Jim Dennison requested any volunteers interested in getting involved with this working group to let him know within the next month
 - i. Jim has been deterred to continue work due to the lack of ASHRAE funding available or being distributed due to COVID
 - a. This RTAR is not related to decarbonization ASHRAE's new initiative, which could make getting funded more difficult
 - ii. ASHRAE changed CO2 concentration limit to 1000 ppm
 - a. Nick-WELL building certification, CO2 levels under 700 ppm receives extra points. **Nick will distribute more information to the group.**
 - iii. ASHRAE needs a regulatory body to set the limit and then they can adopt it as an acceptable limit, ASHRAE will not set its own limits
 - iv. Discussion about how in the field engineers will not use the IAQP because it is a liability and that using the VRP is the safer way to go
 - a. If the code doesn't require IAQP many engineers will not go out of their way to use it
 - v. Group would like to keep this on the list for continued discussion, currently there are no co-sponsors, **TC2.4 and TC2.3 may be interested groups.**
- b. The IAQP presently does not address airborne pathogens (e.g., SARS-CoV-2 virus). Should the IAQP address pathogens and if so, how?
 - i. Decarbonization and energy in conjunction with COVID-19 this topic remains relevant
 - ii. Same concerns as what was discussed at the Las Vegas and previous meetings, there are no exposure guidelines for COVID-19
 - iii. Other groups who are relevant in this discussion SSPC55, 170, 90.1, 62.1
- c. Leadership of the TRG4 supports the Motion, Discussion, and Voting on the interest of becoming TC.
 - i. Comments from Charlie Seyffer
- 1) An ASHRAE (TC) Technical Committee is a support group made of related industry professionals that provide support for a specific ASHRAE-related expertise. A TC supports related Standards, Handbook chapters, research projects and programs for meetings.
 - a) TC 2.03 includes professionals for gaseous contaminants, 2.04 includes professionals for particulate contaminants. Many people participate in both Committees.
 - b) Both TC Committees have a vested interest in the Indoor Air Quality Procedure (IAQP) and are currently promoting their efforts through Standards that have in their purpose definition 'ventilation'. Even the title implies filtration as a second-class alternative, if at all. Historically, 62 Committee efforts and expertise have centered around the introduction of outside air that is equivalent to clean air as defined by the EPA NASDAQ values.
 - c) Possibly based upon the 62 Committee makeup (voting member expertise), efforts to increase exposure to the IAQP alternative have been difficult. There have even been 62 members (non-filter related) that have voiced their concerns with the procedures publicly and in local seminars. There may also be a financial incentive to members (employers) based upon the IAQP's capabilities to reduce the size of air handling

equipment and the overall footprint of other HVAC components not related to air filtration.

2) Developing a new TC related specifically to the IAQP is like putting the cart before the horse.

- a) ASHRAE Handbooks do not have any chapters related specifically to IAQP.
- b) Many seminars and remote presentations, of superior quality, have been presented by members of TC 2.03 and TC 2.04. Since the technologies are tied together, I cannot see any advantage to an IAQP specific TC.
- c) Programs and research projects are induced by the same two committees, with great success and with many have been associated with IAQP application. An IAQP TC would be duplicative of these efforts and possibly cause conflicts and confusion. ASHRAE also has limited research funding which could be a detriment to the amount of research approved.

The solution may be to create a new Standard, something that was proposed before the inception of TRG-4IAQP. What we ended up with was a Technical Resource Group (TRG) under the umbrella of 62.1. The result was a sub-group that has worked very hard, made some positive changes to 62.1, yet there has been no change in the overall attitude towards the IAQP by 62.1 members (with few exceptions, most of them on this email thread).

We should once again consider creating a Standard specific to the IAQP. Maybe one of the two following suggestions:

- 1. *Air Filtration Application for Acceptable Indoor Air Quality* - This would be a minimum level Standard that designers could use instead of 62.1.
- 2. *Air Filtration Application for Improved Indoor Air Quality*. The ASHRAE Green Standard is not a minimum standard of care, it is a recommended practice standard of care that goes beyond minimum design basics. This is something that is part of our discussions.

- ii. **Hold an interim meeting to discuss the topic further with anyone interested.
Tori will reach out to the group and set up a virtual meeting**

9. New Business?

- a. DALY – Disability-adjusted life year
 - i. Approach that 62.2 is taking to develop their IAQP
 - 1. Goal is to link IAQP with improving your life
 - ii. **Put information available about DALY on basecamp**
 - iii. **Set up an interim meeting to further discuss the topic prior to Atlanta**
- b. John R, new RTAR to look at impact of age on electronic air cleaners
 - i. **Will upload the RTAR onto basecamp**

10. Adjournment

Meeting Adjourned 8:01 PM