

## MEETING MINUTES

### TRG4.IAQP Working Group

Sunday, January 29<sup>th</sup> 2017, 10:30 -12:00 pm (PST)  
Caesars Palace Convention Center, Las Vegas  
Messina Room at Promenade Level

#### Meeting Minutes

The meeting was called to order at 10:33 am PST by the Chair Dr. Dean Tompkins.

The Meeting attendee list is as follows:

<b>Name</b>	<b>Member Status (in Las Vegas)</b>	<b>Present (in Las Vegas)</b>
Dean Tompkins, PhD	Voting, Chair	Yes
Marwa Zaatari, PhD	Voting, Vice-Chair	Yes
Scott Sherwood	Voting, Secretary	Yes
Gemma Kerr, PhD	Voting	Yes
Robert B Burkhead	Voting	No
Elliott Horner, PhD	Voting	Yes
Chang-Seo Lee Ph.D.	Voting	Yes
Erica Stewart	Voting	Yes
Scott D Williams, PE	Voting	Yes
Nick H Agopian	Voting	Yes
Charlene W Bayer, PhD	Voting	Yes
Barney E Burroughs	Voting	Yes
Christopher O Muller	Voting	Yes
Jeffrey Roseberry	Voting	Yes
Charles J Seyffer	Corresponding Member	Yes
W. Brad M Stanley	Corresponding Member	Yes
<i>William C Chadwick</i>	<i>Corresponding Member</i>	<i>No</i>
<i>Kushagra Juneja</i>	<i>PCM</i>	<i>No</i>
<i>Eric Lee Saunders</i>	<i>PCM</i>	<i>No</i>
<i>Shichao Liu, PhD</i>	<i>PCM</i>	<i>No</i>
<i>Christine Robinson</i>	<i>PCM</i>	<i>No</i>
<i>Anwar Syed</i>	<i>PCM</i>	<i>No</i>
<i>James E Dennison</i>	<i>PCM</i>	<i>No</i>
<i>Brian J Hafendorfer, PE</i>	<i>PCM</i>	<i>No</i>
<i>Henry T Greist</i>	<i>PCM</i>	<i>No</i>
<i>Clifford A Cooper</i>	<i>PCM</i>	<i>No</i>
<i>Liju Thomas Eapen</i>	<i>PCM</i>	<i>No</i>
Brendan Owens	Guest	Yes

There was a quorum: 14 voting members present.

Review of St Louis ASHRAE Conference Summer Meeting (June 2016):

- The meeting minutes were approved (Motion to approve by Elliott and seconded by Nick).
- All voting members approved except for the chair who abstained

Dennis Wessel, Section head, was present in the meeting. Dennis explained how to obtain the roster from the website and the need to e-mail the roster back. Dennis reminded the attendees to fill in a reviewer form if they would like to become reviewers for papers. Also, to submit suggestions for track topics.

Scott Williams requested clarifications on the role of the TRG group with respect to Standard 62.1. Charlie Seyffer explained how the group started and the main objective to re-work the IAQP section in the Standard. The chair mentioned that he will keep Wayne Thomann and the chair of 62.1 Hoy Bohanon.

Chair Dean Tompkins discussed Basecamp website to be used as a member collaboration tool. Dean invited group members to join Basecamp after last webinar. Dean also uploaded documents that the group is using as a reference. Also, after last webinar, Dean posted an assignment for the group to be completed before the Las Vegas meeting: "Submit CoC that you believe should be on a List. To suggest a CoC for inclusion on a List, complete the "CoC Template" - one for each CoC."

The chair discussed the methodology for selecting COC. COC is derived based on the following considerations:

- Prevalence in indoor air;
- Health impact: hazardous substance consideration;
- Harmonization with recognized Standards;
- Harmonization with relevant cognitive organizations;
- Assumption that removal of COC via air-cleaning system (145.2) can have similar filter efficiency for species within same chemical family;
- Practical business matter (e.g., cost involved with testing);
- Availability of enforceable RELs;
- Standard method of measurement of COC exists by cognizant authority.

The chair presented two sections from ASHRAE Standard 62.1:

- Section 6.2.1.2 related to requirement of filtration level (MERV) to clean PM<sub>2.5</sub>. Currently the requirement is to use MERV11 particulate filter for buildings located in non-attainment areas.
  - Barney Burroughs recommended to change the requirement from MERV11 to MERV13.
- Section 6.2.1.3 related to requirement of filtration level to clean ozone. Currently the requirement is to use 40% removal efficiency for buildings located in an area where the most 3 year average annual 4<sup>th</sup> highest daily maximum 8-hr average ozone concentration exceeds 209 ug/m<sup>3</sup>.

- Chris Muller recommended to make changes to clarify properties related to the filter used: capacity and efficiency over the life of the building of the filter/sorbent per ASHRAE Standard 62.1. Also, Chris recommended to change the requirement for 40% filter/sorbent efficiency for all non-attainment areas.

Chris will inform ASHRAE Standard 62.1 with these recommendations.

The first COC list discussion focused on renaming “COC”. Instead the list of contaminant of concern, Barney and Charlene suggested to substitute COC with terminology that does not imply health effects because ASHRAE Standard is not a health-based Standard. Many nomenclatures were suggested (e.g., surrogates for ventilation, indicator IAQ compounds). Barney and Charlene will research this topic and get back to the group with a recommendation.

The chair Dean presented the different lists sent previously by the different members. Dean showed that formaldehyde was in every list that was sent (total of 5 lists). Benzene was in 4 out of 5 lists. Toluene was in 3 out of 5 lists.

The chair started by asking the members to vote and mention the rationale for including or not including indicators.

- The first indicator was formaldehyde. All group members were in favor to include formaldehyde in the final list of IAQ indicators.
- The second indicator was benzene. Charlene opposed to include benzene as an indicator because benzene would be hard to test for. She suggested to include toluene instead. The group members agreed with her except Marwa Zaatari and Nick Agopian. Marwa’s opinion that benzene should be included because it is toxic and emission rates and threshold limit for benzene ( $3 \text{ ug/m}^3$ ) will warrant that we control for this compound. Marwa explained that we can use toluene for air cleaning efficiency as a proxy for benzene air cleaning efficiency in case labs have problems in testing for it. Group members voted to exclude benzene from the list and voted to include toluene instead.

The rest of compounds will be discussed via webinars organized by the Chair Dean Tompkins.

**Meeting adjourned at 12:00 pm PST.**