

## MEETING MINUTES

### TRG4.IAQP Working Group

Sunday, January 24<sup>th</sup> 2016, 10:30-12:30 pm  
Celebration Boardroom, Hilton Orlando, Orlando, FL, USA

#### Action Items - Executive Summary

- **Members of TRG4.IAQP will be contacted in order to participate in conference call(s)**, so as to meet the needs and deadlines of the IAQP Subcommittee (e.g.: Education) of Standard 62.1 in preparation for the 2019 version of 62.1. Chair Dean Tompkins will utilize an ASHRAE point of contact (Mike Vaughn) to set-up conference call(s) between TRG4.IAQP members.
- Chair Dean Tompkins and Secretary Marwa Zaatari will be active in further creating the content of documents leading to developing the IAQ Procedure. **Other/All TRG4.IAQP Members are welcome to assist in this initiative; simply contact Dr. Tompkins and/or Dr. Zaatari with the type of assistance that you can provide.**

#### Meeting Minutes

The meeting was called to order at 10:30 am by the Chair Dr. Dean Tompkins.

**MEMBERSHIP:** The chair and attendees discussed the roster and any potential new voting or corresponding members. Below is a summary of the Membership activities for TRG4.IAQP.

- **New Voting Member(s) - 7**  
Dr. Gemma Kerr, Scott Sherwood, Dr. Marwa Zaatari, Nick Agopian, Chris Muller, Barney Burroughs, and Jeff Roseberry are being added as new Voting Members, immediately after Orlando ASHRAE Meeting (1 Feb 2016) via an Emergency Roster Change request on behalf of Chair Tompkins.
  - During the Orlando ASHRAE Meeting (23-27 Jan 2016), the TRG4 had 2 Voting Members present, namely Dr. Dean Tompkins and Dr. Charlene Bayer. [There was not a quorum of Voting Members in Orlando, as 6 Voting Members need to be present.]
  - After Orlando ASHRAE Meeting (1 Feb 2016), the TRG4 will have 9 Voting Members.
- **New Corresponding Member(s) - 3**  
Charlie Seyffer, Dr. Chang Seo Lee, and Brad Stanley will be added to the list of Corresponding Members, immediately after Orlando ASHRAE Meeting (1 Feb 2016) via an Emergency Roster Change request on behalf of Chair Tompkins.
- **Deleting Member(s) - 1**  
William Lull, per his understanding, desires, and acceptance as effected via email correspondence between Mr. Lull and Chair Tompkins, will be deleted from the Membership due to his professional discontinuation-affiliation with ASHRAE.

- **Leadership**

**Chair:** Dean Tompkins is current Chair, rolling-off after Long Beach Meeting (30 Jun 2017)  
Marwa Zaatari, rolling-up to Chair after Long Beach Meeting (1 Jul 2017)

**Vice-Chair:** Gemma Kerr is current Vice-Chair, rolling-off after St. Louis Meeting (30 Jun 2016)  
Marwa Zaatari rolling-up to Vice-Chair after St. Louis Meeting (1 Jul 2016)

**Secretary:** Marwa Zaatari is current Secretary, rolling-off after St. Louis Meeting (30 Jun 2016)  
Scott Sherwood, rolling-on as Secretary after St. Louis Meeting (1 Jul 2016)

- The Meeting attendee list (18 attendees) in Orlando is as follows:

Last Name	First Name	Member Status (in Orlando)	TRG4 Position (in Orlando)	Present (in Orlando)
Tompkins, PhD	Dean	Voting	Chair	Yes
Kerr, PhD	Gemma	Non-Voting	Vice-Chair	Yes
Zaatari, PhD	Marwa	Non-Voting	Secretary	Yes
Bayer, PhD	Charlene	Voting	Voting Member	Yes
Agopian	Nick	Non-Voting	Guest	Yes
Taft	Richard	Non-Voting	Guest	Yes
Seyffer	Charlie	Non-Voting	Guest	Yes
Williams	Scott	Non-Voting	Corresponding	Yes
Allighi	Zuhaira	Non-Voting	Guest	Yes
Salimifard	Parichehr	Non-Voting	Guest	Yes
Roseberry	Jeff	Non-Voting	Corresponding	Yes
Muller	Chris	Non-Voting	Guest	Yes
Horner, PhD	Elliot	Non-Voting	Guest	Yes
Burroughs	Barney	Non-Voting	Guest	Yes
Stanley	Brad	Non-Voting	Guest	Yes
Hafendorfer	Brian	Non-Voting	Guest	Yes
Sheinman	Harris	Non-Voting	CTTC Liaison	Yes
Wessel	Dennis	Non-Voting	Section Head	Yes

**Timeline for 2019 Re-Write of the IAQP for Standard 62.1:** Chris Muller, member of the IAQP Education subcommittee of Standard 62.1, stated that we have one year (2016) to work and prepare documents for the ASHRAE Standard 62.1-2019 publication. According to Mr. Muller, the TRG4 needs to have documents [e.g.: List of CoC (Contaminants of Concern)] developed for the Standard 62.1 committee(s) by (approximately) May/June 2016.

**IAQP Discussion:** In the Meeting, Chair Dean Tompkins demonstrated software that he developed to solve Standard 62.1 (IAPQ and the VRP). The purpose of the demonstrated software was to facilitate discussion of the IAQP. Dr. Tompkins presentation and the in-room discussion focused on the needs relevant to create a more well developed IAQ Procedure of

Standard 62.1. In so doing, the work-product of the TRG4.IAQP can provide substantive modification(s) to:

- (1) identify a list of CoC,
- (2) improve the usability of the IAQ Procedure, and
- (3) reduce, if not eliminate, the gamesmanship (gross misuse) by some IAQP users (e.g.: commercial product vendors, engineers, among other IAQP practitioners) who inappropriately utilize the IAQ Procedure.

A list of the topics covered during this discussion included:

- Number of Contaminants of Concern (CoC)
- Regulatory exposure limits of CoC
- A list of CoC (with some degree user selectability)
- Outdoor concentrations of CoC
- The paucity (lack thereof) of emission (or generation) rate data for CoC, representative of different building environments. There is a need to provide more generation rate data for CoC.
- Gas-phase filter removal efficiency,  $E_f$ , in the mass balance equations of the IAQP (e.g.: see Table D-1 in Standard 62.1 User's Manual):

The magnitudes for  $E_f$  are values between 0 and 1.  $E_f$  is unique for each CoC considered.  $E_f$  should be only derived from challenge (gas) testing (of gas-phase air treatment devices) in strict adherence to ASHRAE Standard 145.2 [Laboratory Test Method for Assessing the Performance of Gas-Phase Air Cleaning Systems: Air Cleaning Devices (ANSI approved)]. However, “gamesmanship” via gross misuse of the magnitude(s) for  $E_f$  are evident, if not increasing, in the indoor air gas-phase air cleaning industry. That is, gas-phase air product industry vendors are utilizing unfounded magnitudes for  $E_f$  that are derived from very questionable sources and/or methods.

Approaches including procedural and other methods are being discussed for implementation into the IAQP in order to reduce and eliminate the misuse of the IAQ Procedure (e.g.: via inappropriate values for  $E_f$ ).

- RVR – portion of return air. Discussion where do we get it from. Brad Stanley explained that we get it from design engineers and it is a representation of load of the building. Marwa Zaatari mentioned that she replaces return air with supply air because supply air is the fixed amount. The return air will depend on the amount of fresh air calculated.
- Discussed the needs: **List of CoC**. Chris Muller mentioned that we need to have at least a preliminary list as a starting point.
  - Dean Tompkins showed the current status of information compilation by showing the following excel sheets:
    - “Compilation of Resources for Consideration in Manuscript”
    - “Tables for Manuscript Development”

- Members of the TRG4.IAQP Technical Group need to continue adding remaining literature studies to the list.
- Dean Tompkins discussed the multiple approaches to organize the CoC via chemical class, vapor pressure, acentric factor, (adverse) health effects, among other approaches.

**62.1 User's Manual:** Chris Muller mentioned that the IAQP example in ASHRAE Standard 62.1 may need a revision. Chris mentioned this to Hoy Bohanon (Chair of 62.1).

**Peer-Reviewed Manuscript:** Dean Tompkins discussed that when the current work by the TRG4.IAQP is completed for the needs of the 62.1 committee, we can prepare a manuscript for submission to a peer-reviewed journal (e.g.: *Indoor Air Journal*).

**CHC Liaison Harris Sheinman:** Regional vice chairs can promote TRG.IAQP to add members. E-mail [chc4@ashrae.net](mailto:chc4@ashrae.net) and mention what expertise we need. CHC can also help to translate the mass balance equation into terms where other engineers/consultants can understand.

**Dennis Wessel Section Head:** Dennis sent the approved roster and mentioned that we can submit a request to CEC to meet remotely and vote electronically. Also, ASHRAE is working on online form (still in Beta testing) to facilitate changes. It will be probably be available after 1 year.

If you have any question about the website, ask Joseline Redcliff. TC Chair training is available.

Mike Vaughn can help with setting up conference calls.

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