

## **ASHRAE MEETING MINUTES**

### **Long Beach, CA**

#### **TRG4.IAQP**

### **Indoor Air Quality Procedure Development**

**25 June 2017, Long Beach, California**  
**Renaissance**

**Sunday, June 25, 10:30 am – 12:00 pm, Renaissance Hotel Room: Bixby 2 (R-2)**

**10:30 am – called to order**

Dean Tompkins comments to Jan. Minutes

Toluene has added as compound indicators added to the minutes.

Motion by Elliot, 2<sup>nd</sup> by Scott

Jeff mentioned the word informed should be added to Scott Williams paragraph.

Chair presented 2<sup>nd</sup> paragraph word “Most” changed to “Last”

The first COC word ASHRAE was ASHSRAE changed to ASHRAE.

Nick was voluntold to be the webmaster.

Moment take to Brad Stanley.

#### **COC Discussion:**

Dean Tompkins:

Contains some negative connotations and came up with Indicator compounds “IC”

Charlene Bayer:

Just because we use IC, does not mean others need to change it. It’s not a big deal if others do not change it, but they may.

Eric:

Supports change and it is clear and depicts the purpose. The COC generates a lot of confusion.

Gemma:

In favor of using IC.

1. We do not want to be involved in health based issues.

2. We are supporting the 62.1 chemicals in buildings as it supports the purpose.

Elliot:

By using IC, it also is safer for labs to work with.

Don:

Asked for clarity, he can still use COC if he wants, this group will use "IC", the larger group in 62.1 may want to use it, but that is not the purpose of this TRG group.

Jeff:

"IC" is recommending common indoor air pollutants. He feels we need to explain.

Chris replied

We will clearly indicate what these compounds are. "IC" really mean the same thing.

Jim D.:

Asked if the list in 62.1 the same list in IAQP? Does it need to be the same list? The need can be specific to each application design. Inherently, the list of compounds in 62.1 has to be the most toxic. Dean said; For the list of a test method, we can use Toluene but include Benzene.

Jim:

Said you may test for toluene, you may realize benzene is the actual problem. So you should be testing for Benzene not Toluene.

Marwa:

We need to focus on emission rates not just eff.

ED:

Either term has a substantial issue. The may purpose for IAQP is to reduce ventilation rate. The COC or IC is a list to modeling. The data is outdated and it needs more studies. IC or COC do not really get you overall IAQ or occupant health.

Marwa:

IAQ is not only to reduce ventilation. It is a performance approach. You can end up with more ventilation.

Ed;

Will occupants be healthier, Chris said that is not the purpose.

Charlie:

We need a definition of what IC is in the standard. IC may leave it open.

Elliott:

Maybe we should call it Test Surrogate We recognize there is a large group of compounds, we are selecting a select group to represent the larger group.

Jim:

Definition is needed in the standard.

Gemma:

Supports Elliott's position.

Dean mention:

The Surrogate...is not the best as it means it may or may not be in indoor air.

Jim;

Come up with a list but coming with the same list we may have a conflict.

Marwa:

Mentioned not to have different list, for example, you can list Benzene but have toluene as an indicator. Or surrogate.

Chris:

3 items 62.1, 145 and IAQP. We need to make sure we review the standard to incorporate the 3. Meaning we need to be consistent between the 3. For example, for IAQP you need to provide test data from 145.2 so everything is tied together. The name is not that important, but how we use it is critical.

### **Indicator compounds Discussion:**

Dean:

Listed the compounds and would like us to consider PM2.5, PM10 and O3, acetaldehyde, acetone.

Marwa:

Asked to look at the LEED list.

Charlene:

Mentioned Styrene Naphthalene and Dichlorobenzene are solids. Also, Acetaldehyde and Formaldehyde are the same.

Erica:

2 oxy's are in cleaning compounds and these are what we need to be testing for rather than Styrene.

Marwa:

Mentioned while some of these gases are not used in the USA, this is an international standard and is found in other places.

Stephanie:

We can use these for Indoor air and have a list for other compounds.

Jim:

He is looking for what is prevalent and what are the health impacts. He would like to set prevalence, and health data to screen the different compounds. There are gases like alfa-terpineol and limonene, are the prevalent?

Marwa:

She has completed work on this, we can remove it, or leave it and update the limit as needed. It is important as it indicates that there are indoor air chemistry that impacts or can impacts other compounds.

Jim:

We need to start to populate a database of these compounds.

Chris:

We need to put together a relevant list for comparison, we should not go off the path for the IAQP guideline. Chris would like to put together a list we can all agree on.

Chris:

**Motion to add O3, Charlene 2<sup>nd</sup>, discussion, there will be some issues with testing, but we need to understand what is relevant.**

**Discussion:**

Jim:

Said there can be other gases, Chris mentioned you do need to complete a site survey.

Scott:

Asked if this is for the building or the filter, Marwa said it is for the filters only, not the building. It is to identify the compounds and determine removal eff. For E<sub>f</sub>

Jeff:

Wants to reference an email sent this morning. Comment is never present unless introduced via ozone filters or malfunctioning motors. It is hard to capture and it is transient.

**13-0-0 chair voting**

Chris;

Is CO2 a COC? It is suspect. CO2 filtration is not widely used.

Elliott:

Said either use more outdoor or have less people.

Chris;

In Europe, they are starting to set higher limits.

Marwa:

Andy's work is on CO2 generation. Harvard does state there are issues with higher levels. We can put a limit but not ignore it. LEED said to limit CO2 is 1000 PPM

Marwa:

For offices it is 700 PPM plus oa. If over 1000 ppm, you need to increase oa. This is detailed in the appendix.

Jim:

Wants to include not just the name of the compound but the concentration.

Dean:

Let's complete a whitepaper on concentrations, specifically CO2 (Jim wants to include other gases)

Jim:

Would like a list chemical by chemical to show how we came up with it.

Informational appendix can be added.

Jim:

Put together a group to work on the list (Jim, Gemma and Marwa)

Charlie:

Why don't we use **NAAQS**? No discussion took place, still open.

### **New Business:**

Ed:

Multi task group on VOC mixtures update group. Explore how they are being address by ASHRAE standards. Ventilation against air quality and health. There are other groups doing these tests/studies. There is a white paper on this available. Ed has prepared a proposal for this MTG and looking for co-sponsoring for this MTG.

AIHA has published it. And it is official by their board. Ed would like to distribute the draft for our review.

Marwa:

Recommending calls monthly between meetings to move along the process.

**Motion:**

**Charlene:**

**Motion to adjourn second by Eric.**