

# ASHRAE MEETING MINUTES – LOUISVILLE

## TC 2.3 - Gaseous Contaminants/Removal Equipment

### Handbook Sub-Committee Meeting

Monday, June 22, 2009

4:15-6:00 p.m.

Convention Center, Room 211

The meeting was chaired by Gemma Kerr (Handbook Chair for TC 2.3). Participants introduced themselves. Present were:

Gemma Kerr (Chair)  
Nick Agopian  
Jaak Geboers  
Catherine Jacquioid  
Bill Lull

TC 2.3 is presently responsible for 2 Handbook chapters:

- Fundamentals Chapter 11 – *Air Contaminants* (2013 Handbook)
- Applications Chapter 45 – *Control of gaseous indoor air contaminants* (2011 Handbook, submission due summer 2010)

Responsibility for Fundamentals Chapter 12 – *Odors* has been transferred to TC 2.1 *Physiology and Human Environment*. Information on the parts of the chapter that TC 2.3 does have expertise for has been passed to TC 2.1 along with an offer to help with these parts, as detailed in the Chicago Minutes.

Matt Middlebrooks has had to resign as Reviser for Chapter 45 due to pressure of work. Gemma Kerr agreed to act as Reviser for the next year in order to get already agreed upon changes implemented before the chapter submission deadline (March-July 2010). The changes identified in Chicago, and three more identified in Louisville, are listed below along with names of people who have accepted responsibility to review, rewrite and add information:

1. Update and expand Table 2 (contaminants emitted from building materials) - **Catherine Jacquioid**
2. Verify that the old references in Table 4 (contaminants emitted by humans) are still good - **Nick Agopian**
3. Update Table 5 (levels of contaminants in outdoor air) - **Nick Agopian**
4. Check whether equations 5, 6, and 7 are up to date. See if explanations of the equations can be improved – **Paolo Tronville** and **Cecily Grzywacz** (agreed at TC 2.3 meeting)
5. Update and expand the material on photocatalysis on page 10 - **Jaak Geboers** and **Catherine Jacquioid**

6. Add more material on the dangers of ozone-generating air-cleaning equipment and on state regulations governing them – **TBD. Jaak Geboers** will send info on the CA regulations to Gemma (done)
7. Under Equipment on page 11, verify whether the letter labels (4A etc.) for Figure 4 are correctly attributed in the text, also fix Figure 4D - **Bill Lull**
8. On page 13, under System Design, move the air-cleaner location paragraphs to after the media selection paragraphs, and make other re-arrangements as required by this change. Matt may already have done this, **Gemma Kerr** will check and complete if necessary
9. Minor wordsmithing is needed to text in Figure 5 (media and equipment selection) - **Nick Agopian**
10. Table 6 (media selection by commercial application) needs to be changed to be engineer-friendly, and to be expanded (aim to cover all spaces listed in 62.1) - **Nick Agopian**
11. In Table 7 (media selection by contaminant), people did not like the “0” and “\*” to indicate recommended media. We should find another notation (1 and 2, or P and S suggested), and explain it in the text. We should also look at whether there are any other mainstream media that should be added to the Table - **Nick Agopian** and **Gemma Kerr**
12. At the bottom of page 15 and on page 16, material on manufacturers’ design guidance should be made more generic - **Gemma Kerr**
13. In the section on media selection, reference Standard 145.1 - **Gemma Kerr**
14. On page 20, adjust the language regarding lab tests to reflect the new position on Standards 145.1 and 145.2 - **Gemma Kerr**
15. Add a breakthrough test graph from 145.1 - **Gemma Kerr**
16. Under Safety on page 18, add information on UL ratings where they exist. Where there are no UL ratings, the adsorbent is probably classified as a fuel. In this case, add a caveat on avoiding use where there are ignition sources such as electrostatic filters or UV lamps. Check the flammability rating of the media - **TBD**
17. New measurement techniques should only be listed in Chapter 12, and Ch 45 should refer to Ch 12 for them where appropriate - **Gemma Kerr**
18. On pages 18 and 19, revise the Installation, Startup and Commissioning section, and the Operations and Maintenance section - **Bill Lull**
19. Check for confusion in terminology between chemisorption and adsorption - **Gemma Kerr**
20. Define and discuss clean air delivery rate (CADR) as a measure of air cleaner performance - **Gemma Kerr**

**PLEASE NOTE:**

1. Items whose responsibility is still to be determined (TBD) will not be addressed in the 2011 edition unless someone volunteers to deal with them
2. All above assignments are due on **September 1**. Please use the ASHRAE file provided by Matt, cut out the part you agreed to revise, and return revised small file to Gemma Kerr
3. Gemma will distribute the revised chapter for another review October 1.

The meeting was adjourned at 5:35 pm.