

TC 2.3 - Gaseous Contaminants/Removal Equipment
Chapter 47 – Air Cleaners for Gaseous Contaminants in HVAC Applications- 2023
Handbook Sub-Committee Agenda
Zoom meeting Wednesday, January 20, 2022 at 10:00 – 12:00 am PST

1. *Meeting called to order at 2:04 PM EST*
2. *Tori will take notes and take meeting attendance. See below.*

Nick Agopian	Brian Krafthefer	Gregg Sanko
Victoria Binz	Kevin Kwong	Michael Sherber
Glenn Brinckman	Paula Levasseur	Lu Song
KJ Choi	Marilyn Listvan	Christine Sun
Ashish Gadhave	Matt Middlebrooks	Marwa Zaatari
Henry Greist	Chris Muller	
Sanjeev Hingorani	Caitlin Naske	
Chrystal Jolliffe	Kathleen Owen	
Gemma Kerr	Scott Parris	

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3. Chapter 47, due into ASHRAE by July 2022. TC needs to vote on chapter in June.
 1. *Chapter 47 is now on “Revision G”. Anyone who has not received the most recent revision of the chapter contact Brian.*
 2. *Comments from those who reviewed Revision G prior to meeting...*
 - *Terminology:*
 - *Strike out “In particular” from start of paragraph (Gemma)*
 - *Challenge compound should be added in as a definition (Gemma)*
 - *Recommendation to make definitions of “Removal Efficiency & Removal Capacity” broader to potentially be accepted as an addition onto ASHRAE’s website terminology page (Gemma)*
 - *“GAC” is an acronym and should be moved out of the definitions section into the acronyms section (Gemma)*
 - *“Mass Transfer Zone” definition needs to be updated because as it is currently written does not agree with what is stated in the body of the chapter. (Gemma)*
 - *Gemma will provide Brian with a reworking of the definition of “Penetration” as well as any other comments on “Revision G” to be included into “Revision H”*
 3. *Discussion about Figure 6 and the use of “airborne molecular contamination”*
 - *Shift towards moving away from molecular filtration → gaseous contamination*
 - *Would be difficult change to make at this time due to needing consistency across not only in TC 2.3 Chapters but other standards and chapters as well, one or the other needs to be used*
 - *Due to the chapter deadline, Chris Muller agreed to find a spot within the chapter to introduce the language and therefore it can also be added into the terminology section under the definition of “Gas Phase” potentially as “also known as”*
 4. *Any other comments on “Version G” of the chapter should be sent to Brian ASAP*
4. Chapter 47 – Update on actions from last meeting:
 1. Brian Krafthefer agreed to check equations (5) and (7) against their counterparts in Standard 62.1 before June meeting. Chang Seo Lee said that Std. 62.1 does not break it down into the number of sources that we do in our Handbook Chapter.
 - *Action item is still IN PROGRESS*

2. Comments on sections in the Chapter:

- Table 3 review
 - *Chang Seo to provide a revised Table 3*
- Problem Assessment
 - *NOT COMPLETED, Mike Sherber will reach out to Brian.*
- Contaminant Reduction Strategies review.
 - *Chris Muller volunteered to look into it and report back*
- Installation, Start-Up, and Commissioning – David Schaaf said he will review Section 4.
 - *Dave Schaaf was not present on the call, but Mike Sherber volunteered to help review Section 4.*
- Operation and Maintenance
 - *IN PROGRESS Caitlin has started work on it, and will try to have the section (Section 5) finalized in the next few weeks and will send to Brian*
- Testing Media, Equipment, and Systems
 - *IN PROGRESS Caitlin will work on completing the review of Section 6 in the next few weeks*
- KJ said he needs more time to combine technologies.
 - *Item is still IN PROGRESS, KJ will continue to work on the action item and send to Brian once complete*
- Suggestions on references.
 - *Any suggestions for references should be sent to Brian*

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5. Tables

- *For Tables 2, 3, 4 and 6 change or add language to state that the tables were “adapted” from the source dictated. With change, no permissions will be needed.*
 - *Any sources that are pulled from websites need to include “date accessed”*
1. Table 1 - No permission needed
 2. Table 2 - *Change language to be “adapted from” → No Permission needed*
 - *Link used in the reference is no longer valid. Tori will send Brian an updated link.*
 3. Table 3 - *Change language to be “adapted from” → No Permission needed*
 4. Table 4 - Permission needed – Kathleen
 - *Change language to be “adapted from” → No Permission needed*
 - *Kathleen will look into information in this table to see if it needs to be updated*
 5. Table 5 – Maybe permission needed?
 - *No permission needed*
 6. Table 6 - *Change language to be “adapted from” → No Permission needed*
 7. Table 7 – *Assume permission needed*
 8. Table 8 - *Assume no permission needed*
 9. Table 9 – *Is permission needed?*
 10. Table 10 – Permission not needed
 - *Source is from 1992 and needs to be updated. Chris Muller volunteered to find a newer source*
 11. Table 11 – No permission needed
 12. Tables 9 to 11 – Can someone check Tables 9 through 11 for accuracy.
 - *Chris and Kathleen will review the tables*

6. Figures

- *No additional work is needed*
- 1. Fig 1 – No permission needed.
- 2. Fig 2 – No permission needed on the existing figure
- 3. Fig 3 – No permission needed
- 4. Fig 4 - No permission needed
- 5. Fig 5 – No permission needed on the existing figure.
- 6. Fig 6 - No permission needed

7. Additional reviewers of chapter needed.

- *Reviewers needed to read through the entire chapter – Read through will be on Version H of the chapter*
 - *Volunteers: Paula, Nick, and Marilyn*

8. Additional Comments/Questions

- *Comments on the chapter from the TC will be collected*
 - *These comments will be collected and address in the following 4 years for the future edition*
- *Brian suggests that a few sentences about forest fires be added into the chapter*
 - *Caitlin has some research on the topic and volunteers to put together a short write up.*
- *Suggestion to include a section involving residences*
 - *Contamination is different, hobby, cooking, cleaning agents ect.*
 - *Might not be enough time to address and get into this edition but something that should be considered and worked on in the future 4 years.*
 - *Caitlin volunteered to put together a few sentences to fit into this edition of the chapter.*
- *Gemma will provide an additional edit of “Version G” and send to Brian*

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9. Schedule – this provides dates for the completion of the following reviews and also the meeting dates.

1. *Meetings: Week of 2/27 and week of 3/27. A **poll will be sent out**. Meetings will be virtual.*
2. *Assigned section reviews – reviews **due 2/20***
3. *Assigned chapter reviewers – reviews **due 3/20***
4. *Assigned table updates – updates will be **due 3/20***
5. *The chapter will be sent to the TC members by 3/27. Included will be the note that all comments will be for the 2027 chapter.*
6. *The TC vote needs to be done at June meeting*
7. *Send chapter and associated documentation to ASHRAE – July*

10. Meeting adjourned at 3:00 PM EST