

Meeting Minutes

**TC 2.3 Handbook Subcommittee Meeting
Chapter 47, Air Cleaners for Particulate Contaminants,
HVAC Systems and Equipment Volume – 2027
Chapter 11, Fundamentals Volume - 2025**

August 28, 2023

1:00 – 3:00 EDT

WebEx

Webinar link:

<https://ashrae.webex.com/ashrae/j.php?MTID=m332d47689323717821b9b67ac58a23ec>

I. Call to order

Call to order at 1:05 PM

Attendees:

Gemma Kerr, Caitlin Naske, Kathleen Owen, Tori Binz, Michael Sherber, Henrique Clay, Brian K, Thomas Gort

II. ASHRAE Code of Ethics Commitment

In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and we shall avoid all real or perceived conflicts of interests.

(Code of Ethics: <https://www.ashrae.org/about/governance/code-of-ethics>)

(Core Values: <https://www.ashrae.org/about/ashrae-s-core-values>)

III. Committee Organization

- A. Introduction of attendees.
- B. Tori Binz will be secretary.
- C. Seeking a Vice Chair
 - a. Please let the chair know before the meeting if you are interested.
 - b. Caitlin Naske has volunteered.
- D. Vote on approval of June 13th minutes
 - a. No additions or changes, minutes approved by the group.

III. Chapter 11 in Fundamentals 2025 Handbook

1. Introduction and Classes of Contaminants (Gemma Kerr, Brian Krafthefer, Nick Agopian)

- 1. Review of changes proposed by Gemma and Kathleen, predominantly language changes for clarity.

2. Introduction

- i. Paragraph #1:
 - a. *"Because ~~it is most are~~ not a building air concern, ~~the effects of~~ refrigerants ~~on the atmosphere~~ are not included in this chapter; see Chapter 29 for ~~discussion information on of this topic~~ these chemicals."*
 - b. Further update the above sentence, the last sentence in the paragraph.
Refrigerants can leak out of systems and should be mentioned.
- ii. Paragraph # 2: all changes accepted.
- iii. Paragraph # 3:
 - a. Language update, change "forest fires" to "wildfires"
- iv. Paragraph # 4: all changes accepted.
- v. Paragraph # 5: all changes accepted.
- vi. Paragraph #6: all changes accepted.
- vii. Paragraph # 7: all changes accepted.

3. Classes of Contaminants

- i. All changes accepted.
- ii. Typo update, Paragraph # 3:
 - a. *"The **gaseous** class covers chemical contaminants that can exist as atoms, free molecules, or molecular clusters in air. While molecular clusters may overlap the smallest particles in size, free molecules and atoms are smaller and behave differently as a result. **This** gaseous class covers two important subclasses:"*

2. Particulate Contaminants (Mengjia Tang, Kathleen Owen, Caitlin Naske)

1. Brian K. to report on our request during the Tampa meeting for TC 2.4 to help us with Chapter 11.
 - i. Brian K. currently chair of TC 2.4 Handbook
 - ii. Tom Justice, John Randke, and Michael Corbat have been contacted for assistance with the chapter.
 - iii. Contact members who have up to date particulate research: Jeff Seigle, Brendan Boor, Brent Stevens, and Peter M.
 - iv. **The chapter deadline is in July**, ask for them to have reviewed chapter, make edits, changes, and additions by **Thanksgiving**.
2. Wildfire smoke (Caitlin Naske)
 - i. GPC 44P (Protecting Building Occupants from Smoke During Wildfire and Prescribed Burn Events)
 - ii. Do we include increased levels of ozone during wildfire events (Brian K.)
 - iii. Caitlin N. will get the section started, the goal is to start the process and see where more information is needed.

3. Gaseous Contaminants (Caitlin Naske, Tori Binz, Michael Sherber)

1. Need to add newer refrigerants (HCFCs, HFCs, and HFOs) to Table 5
 - i. Ammonia is being used as a refrigerant as well as other newer refrigerants which need to be included.

2. Should we add PFAS to Table 5?

- i. Add chloramines to Table 5, 3 or 4 major species with concentration limits should be identified and added.
- ii. PFAS addition, Micheal S. will present reference to identify they are an air contaminants concern.

4. **Air Contaminants by Source (John Randtke)**

1. Coordination with TC 2.3 main committee, TC 2.9, SPC 185.5, SSPC 52.2
2. Volunteers for bioaerosol topics (e.g., Std. 241)
 - i. TC 2.9 member to looking into bioaerosol topics: Henry G., Linda Lee

5. **References and Bibliography (Brian Krafthefer, Tori Binz)**

1. Review current references and make a list of outdated references. Tie the references to where and how they are cited in the body of the chapter.
 - i. Brian completed this action item; Michael S. will distribute to the group for review and to update where necessary.
2. Review of alternate and more up to date document sources, if appropriate
3. Update IAQ and emissions standards and levels

IV. **Schedule Future Meetings**

The proposed following schedule of meetings, all at 3 PM Eastern Time, after this meeting before the Chicago Winter Meeting is:

- A) September 18th
- B) October 30th
- C) November 20th
- D) December 11th
- E) January 8th

What date and time works best for the Chicago in-person meeting? TBD.

v. **Schedule Objectives**

Our goal is to have a rough draft (except non-substantive changes) of Chapter 11 ready to present to the full TC 2.3 for a vote by the 2024 Annual Meeting in June 2024. Main committee of TC 2.3 to approve our subcommittee's edition at the 2024 Annual Meeting.

VI. **New Business**

1. Review Table 6 "Characteristics of Selected Gaseous Contaminants" and see if there are any contaminants that can be removed to shorten the table.
2. The goal for the chapter is not only to add new items but to remove information that is not important or relevant.
3. Can we get the chapter and members active on the author portal to make edits to the chapter seamlessly.

VII. **Adjourn**

Meeting adjourned at 2:45 PM EDT