



Minutes - ASHRAE MEETING – ATLANTA
TC 2.3 - Gaseous Air Contaminants/Removal Equipment
TC Meeting
Tuesday (6/30), 1:00 pm - 3:30 pm, Salon E (2)
(2nd Floor, Atlanta Hilton)

The meeting membership attendee list is as follows:

Last Name	Name	Member Status	Position	Present
Total Voting Members = 13 out of 15 in attendance				
Bayer	Dr. Charlene W. Bayer, PhD	CM	TC Vice Chair	-
Choi	Dr. Kyung-Ju Choi, PhD	VM	Program Chair	P
Flom	Mr. Michael C. Flom	VM-NQ	Member	-
Hafendorfer	Mr. Brian J. Hafendorfer	VM	Member	-
Kerr	Dr. Caroline M. Kerr, PhD	VM	Handbook Chair	P
Krafthefer	Mr. Brian C. Krafthefer	VM	Sec./Hbk Vice Chair	P
Lau	Dr. Josephine Lau, PhD	VM	Member	P
Lee	Dr. Chang-Seo Lee, PhD	VM-NQ	Member	P
LeVasseur	Ms. Paula LeVasseur	VM	Web Chair	P
Listvan	Dr. Marilyn Listvan	VM	Program co-chair	P
Mathur	Mr. Ashish Mathur	VM	Member	P
Middlebrooks	Mr. Matt Middlebrooks	VM	Membership Chair	P
Owen	Ms. Kathleen Owen	VM	Research Chair	P
Schaaf	Mr. David A Schaaf, Jr	VM	Program Co-Chair	P
Stanley	Mr. W. Brad M. Stanley	VM	TC Chair	P
Tronville	Dr. Paolo M. Tronville, PhD	VM	Standards Chair	P

Summary of Motions

#	Motion	Vote
1	Motion to approve Chicago TC2.3 minutes with change of Amish to Asish. Marilyn Listvan 1 st , Matt Middlebrooks 2 nd .	12-1-0-15 CNV
2	PMS recommending to terminate 1457-RP, “By-product Production from PCO”. Motion: approve research recommendation to terminate. Gemma Kerr 1 st , Marilyn Listvan 2 nd	13-0-0-15 CNV
3	A motion by Gemma Kerr and seconded by KJ Choi to cosponsor the forum by TC5.10 on cooking emissions –odor evaluations.	12-0-0-15 CNV
4	Standard 62.1 proposing forum: “Challenges for using IAQ Procedure in Code” and would like co-sponsorship from TC2.3. Paula Levasseur made a motion which was seconded by Marilyn Listvan to cosponsor the seminar:	12-0-0-15 CNV



Summary of Action Items

#	Action Item	Owner	Meeting Initiated	Status
1	Letter Ballot to approve Seattle minutes	Brad Stanley	Chicago	Completed
2	Add relevant links to website	Paula Levasseur	Chicago	Completed
3	Website Blog. Generate a short Blog (short 500 – 600 word article) on the TC website frequently (possibly monthly).	Charlene Bayer	Chicago	Open
4	TC Research Roadmap	Charlene Bayer	Chicago	Closed – referred to Planning Sub.
5	ASHRAE Training Modules - Solicit feedback from committee members related to needed training modules.	Brad Stanley	Chicago	Completed – no feedback
6	Kathleen Owen to invite representatives of excluded devices to participate in the SSPC 145 meeting in Atlanta.	Kathleen Owen	Chicago	Open
7	The TC should make a proposal to take action on input to the ISO advisory panel in ISO through a proposed session. Matt Middlebrooks to send a proposal slide to both the voting and corresponding members of TC2.3.	Matt Middlebrooks	Chicago	Completed
8	Collection of TC member’s bibliography papers.	Marilyn Listvan		Open
9	Review and comment on the website	Membership		Open
10	Make a slot for Publications and use it for a forum, 3-4 on Mondays as shared slot with TC 2.4. TC2.4 needs to be contacted.	Brad Stanley		Completed
11	Send emails on what we have volunteered to do for programs and the due dates	KJ Choi		Open
12	Project 1557 PI to give TC2.3 a cost per cfm	Kathleen Owen		Completed
13	WS-1579 “Testing and Evaluation of Ozone Filters.” An email will be sent to ASHRAE to explain what is happening with the TC to try and get a couple of additional weeks.	Matt Middlebrooks	Atlanta	Open
14	Dutch Building Code is classifying schools based on CO2 concentration. Chris will find the information and send it to Paolo.	Chris Muller	Atlanta	Open
15	TC 5.10 drafting new RTAR on Ozone in cooking exhaust. Marwa Zaatari and Brian Krafthefer volunteered to help	Brian Krafthefer	Atlanta	Open
16	Ashish Mathur held a workshop on the	Ashish Mathur	Atlanta	Open



#	Action Item	Owner	Meeting Initiated	Status
	performance rating system and will send out a summary.			

1. **The meeting was called to order at 1:01pm .** Agendas and copies of Chicago minutes were distributed
 - a. The chair welcomed everyone there was an introduction of guests and members.
 - b. It was recommended by the chair that everyone read the ASHRAE Code of Ethics which are attached at the end of the agenda.
 - c. Role was taken of the voting membership and it was found that there was a quorum with 13 of 15 voting members present. The voting members present were: Brad Stanley, Brian Krafthefer, Gemma Kerr, Matt Middlebrooks, KJ Choi, Kathleen Owen, Paolo Tronville, Chang Seo Lee, Josephine Lau, Paula Levasseur, Marilyn Listvan, Ashish Mathur, Dave Schaaf
 - d. No additions or changes were proposed for the agenda.
 - e. No ASHRAE liaisons were present, but a member of CDC requested two reviewers for an Orlando session on “Smoke clearance in an underground parking park using the jet fan system”. Gemma Kerr volunteered to be one of the reviewers.
 - f. Report from TC liaisons: Marilyn Listvan attended the EHC meeting to talk about TC2.3’s interest in health. They should include us as an interested TC. Jeff Siegel is the research chair of EHC and they have research that is also under the scope of TC2.3 and Marilyn Listvan made them aware of our scope of interest. They are also reviewing the IAQ Guide and should have input from TC2.3. Section Head for Section 2 reported that a new section head, Bert Phillips, will be in place for Orlando meeting.
 - g. The TC Chair’s report was by the chair.
 - i. CEC came to chairs breakfast to report. Program deadlines are Aug. 10th for forums, seminars and workshops. For St. Louis, conference paper abstracts due Sept. 14th.
 - ii. For Atlanta conference, 153 papers were submitted, 138 approved and 67 were presented. For technical papers, 52 were received and 36 were presented. 104 seminars were submitted and 66 were presented. 15 workshops were submitted and 5 were presented. 10 forums were submitted and 4 were presented. TC2.3 had a conference paper, a seminar and a workshop.
 - iii. CEC is considering a new option of having non-ASHRAE experts come and present with no fee being charged. To start, only 5 of these speakers will be accepted.
 - iv. All speakers now have to state personnel bias.
 - v. CEC is also allowing a session survey using a smart-phone.
 - vi. Speakers are being rated during their presentation on a scale max of 5. But 3 and below indicated a presentation that is not good. ASHRAE needs to find some way to pass this along to the audience.
 - vii. ASHRAE needs reviewers for conference papers.
 - viii. A new MTG is being formed on occupant behavior in buildings and occupant behavior impact on building energy use and IAQ. They are looking for members. If interested, please submit your name to Mike Vaughn.
 - ix. RAC is prioritizing residential research.

- x. Reminder to update bio with employment discipline.
- xi. ASHRAE is also promoting interim subcommittee meetings on the web.
- xii. The complete Chair's report is included as Attachment A in the minutes.

2. Review and Approval of previous meeting minutes from Chicago.

- a. A correction was made to the Chicago minutes – Ashish Mathur's name needs to be corrected. A motion was made to approve the amended minutes, by Marilyn Listvan and seconded by Matt Middlebrooks. The vote was 12-1-13-15 CNV.

3. Review of Action Items from Last Meeting

- a. Letter to TAC regarding Air Filtration Position Paper – Brad Stanley. Completed but no response to date.
- b. Publications Subcommittee Meeting space and time – Brad Stanley. This was completed and the TC (along with TC2.4) now has this time to handle not only publications but also forms and workshops.
- c. ASHRAE Training Modules solicitation of ideas from committee – Brad Stanley (done) No feedback
- d. Website Updates – Paula Levasseur (done). Everything is up-to-date.
- e. Website Blog – Charlene Bayer (deleted, revert to planning subcommittee) No discussion at Planning meeting
- f. TC Research Roadmap Committee Meeting – Charlene Bayer (deleted, revert to planning subcommittee)
- g. Project 1457 PI to give TC 2.3 a cost per cfm – Kathleen Owen (deleted, not possible)
- h. Action related to ISO Classification Proposals – Matt Middlebrooks and TC Management. Item has been approved.
- i. Collection of TC Publication Bibliographies – Marilyn Listvan. Please send to papers on bio to Marilyn Listvan (of relevance to TC2.3). This will be a list of resources. Could references be pulled from members bios – Marilyn will check.

4. Status of Votes Between Meetings

- a. A letter ballot was sent out for the approval of the Seattle minutes and the vote was to approve. The minutes are now on the web site.

5. Subcommittee Reports

- a. **Handbook** - Subcommittee Chair Gemma Kerr reporting. Subcommittee minutes in Attachment A
 - i. Chapter 46 is published in 2015 Handbook
 - ii. Chapter 11- work is on-going. A telecon will be held in September to continue working on the chapter.
- b. **Membership** - Subcommittee Chair Matt Middlebrooks reporting.
 - i. 6 mfgs or raw material suppliers, 4 users or consultants, 5 Universities or Labs
 - ii. Before this meeting 64 corresponding members were listed, 8 of those were provisional.
 - iii. After the Atlanta meeting 4 members will roll off (Brad Stanley, Nick Flom, Brian Haafendorfer, Matt Middlebrooks, Paolo Tronville) and 4 new members will roll on (Charlene Bayer, Peter Freeman, Sanjeev Hingorani , Chris Muller).

- c. **Planning** - Subcommittee Chair Charlene Bayer, Brian Krafthefer reporting. Subcommittee minutes in Appendix B.
 - i. A roadmap for the TC is being put together and the members of the planning meeting were tasked with sending a paragraph on the value they get from TC2.3.
 - ii. Items from query of Research Subcommittee membership's thoughts on research needs will be included in the roadmap.
 - iii. There was a discussion of what TC2.3 should be doing in the areas of education and certification.
 - iv. The membership also felt that there should be more interaction with TC2.3 and health – possibly through EHC; and how the TC should include energy interactions with gas-phase filtration.

- d. **Professional Development Coordinator** - Barney Burroughs reporting.
 - i. An ALI course is trying to be put together. Information coming out from IAQP taskforce might also be used to establish some courses. NAFA has also come up as an organization from which to get educational material.
- e. **Program** - Subcommittee Chair KJ Choi reporting. Subcommittee minutes in Appendix C.
 - i. For Orlando subcommittee is proposing one forum, one workshop, two seminars, and one technical paper. The Orlando Deadlines for Seminars, Forums & Workshops are August 10, 2015.
 - ii. St. Louis Deadlines
 - 1. Conference Paper Abstracts – September 14, 2015
 - 2. Seminar, Forum, and Workshop Proposals – February 8, 2016

- f. **Publications** - Subcommittee Chair Marilyn Listvan reporting
 - i. People to send in publication references.
 - ii. Marilyn will check with ASHRAE to see if publication references can be obtained from bios.

- g. **Research** - Subcommittee Chair Kathleen Owen reporting. Subcommittee minutes in Appendix D
 - i. Report from Research Chair's breakfast:
 - 1. 61 active projects, 11 new projects were approved, 13 new TRPs were released for bid. In Atlanta 9 RTARs were evaluated, 3 were accepted, 4 were accepted with comments, and 3 were rejected. 4 work statements were received, 1 was accepted, and 2 were rejected.
 - 2. 8 TRPs are under consideration along with 4 URPs.
 - 3. ASHRAE is now requiring work statements with funding increments in percent that are tied to work statement actions.
 - 4. By 2017 there should be training modules available on writing work statements and RTARs.
 - 5. RP-1625 is still alive and Kathleen is requesting that the number be shut down and then a new RTAR can be started. Kathleen will send an email.
 - 6. RP-1720, "Foundation of gas-phase air filter testing assessment – round robin" needs to go in by August or it will be dropped. A letter ballot will have to be sent out.
 - 7. Kathleen talked to Jeff Siegel at EHC and they are interested in working with TC2.3 on health effects.

- ii. Vote Needed: 1457-RP “By-product Production from PCO ...”
 - 1. PMS recommending to terminate 1457-RP, “By-product Production from PCO”. Motion: approve research recommendation to terminate. Gemma Kerr 1st, Marilyn Listvan 2nd : 13-0-0-15 CNV
 - iii. Update: WS-1579 “Testing and Evaluation of Ozone Filters.”
 - 1. Bill Lull will not be able to continue with it but Matt Middlebrooks will take over
 - 2. Matt will send an email to ASHRAE to explain what is happening with the TC and may get a couple of additional weeks.
 - iv. Update: WS-1755 (Chris Muller representative on PMS) “Impact of Gaseous Contamination and High Humidity on reliable operation of information technology equipment in Data Centers”. Should go out for bids in September.
 - v. WS-1514 from TC5.10 with TC2.3 on PMS decided not to accept current bidders and will be drafting a new work statement. They expect TC2.3 to be on PES and PMS.
- h. **Standards** - Subcommittee Chair Paolo Tronville reporting. Subcommittee minutes in Appendix E
- i. GPC-27P with some minor revisions needed has been sent to ASHRAE to be sent out for public comment sometime in September or October. Bill Lull will not be attending future meetings and Gemma Kerr will handle responsibilities of finalizing guideline.
 - ii. AHSRAE Standard 145.1 is now under maintenance.
 - iii. ASHRAE Standard 145.2 will be undergoing a scope change that will include electrostatic systems.
 - iv. GPC-35P has an early stage working draft. Committee is waiting for work statement on new test dust to be approved by RAC.
 - v. Standards 185.1 and 185.2 from TC2.9 have been published. Committee has not been disbanded as a request has been submitted for continuous maintenance. The committee is also thinking about a standard for UV devices located with rooms.
 - vi. TC9.11 is finalizing design guide for cleanrooms.
 - vii. Standard 52.1 published an Addendum that changes the method of calculation for contaminants. IAQP is also looking at how to deal with codes.
 - viii. SSP is soliciting feedback on whether they can do code and are having forum to get this information.
 - ix. Standard 62.2 is taking on multilevel residential building. The common areas of large residential buildings will stay with 62.1. A suggestion was made to replace low rise with high-rise. Paolo will correct this and resend the minutes.
 - x. Chris Muller mentioned that the Dutch Building Code is classifying schools based on CO2 concentration. Schools will have a classification system: below 800 ppm very good, 800 to 1000 ppm is good, 1000 ppm to 1200 ppm is acceptable. Schools that are above 1200 ppm are considered insufficient. Chris will find the information and send it to Paolo.
- i. **Website** - Subcommittee Chair Paula Levasseur reporting
- i. Paula would like all file names of documents to be standardized with no spaces and to be sent as a Word document. Paula also requested that the subcommittees send in their final minutes so they can be posted on the website. Subcommittee agendas are to be sent to the website before the meeting. The standardized file name format will be will be sent out by Paula.

- ii. Marilyn Listvan mentioned ASHRAE's linked-in page and Facebook page. She suggested that people try the ASHRAE linked-in page. There is also a TC2.3 outreach page.

6. New Business

- a. Bill Lull will be leaving ASHRAE and sends his regards; "So long and thanks for all the fish".
- b. Paolo Tronville and Josephine Lau were recognized for their award of Distinguished Service.

7. Agenda suggestions for the Winter Meeting in Orlando, FL.

- a. Bob Gemiini– TC5.10 requesting help with writing RTAR on using UV devices and ozone and other chemicals being generated during cooking. He is hoping that some of the grab sampling that is being done could be replaced by sensors and wants TC2.3 to assist using their expertise. TC5.10 would also like to have a forum on cooking odors and would like TC2.3 to co-sponsor the forum. Zaatari Marwa and Brian Krafthefer volunteered to help with the RTAR. There was a motion by Gemma Kerr and seconded by KJ Choi to cosponsor the forum by TC5.10 on cooking emissions –odor evaluations. Vote is 12-0-0-15 CNV.
- b. Standard 62.1 proposing forum: "Challenges for using IAQ Procedure in Code" and would like co-sponsorship from TC2.3. Paula Levasser made a motion which was seconded by Marilyn Listvan to cosponsor the seminar: The vote is 12-0-0-15 CNV
- c. Ashish Mathur had workshop on the performance rating system. The sponsors of the workshop wanted to know what the response will be and Ashish will send out summary from the workshop. It will be added to the agenda for Orlando.

8. Adjournment at 2:55 pm