

ASHRAE MEETING MINUTES – Louisville, KY

TC 2.3 - Gaseous Air Contaminants/Removal Equipment TC Meeting

Tuesday – June 23, 2009

13:00 - 15:30

Galt House – Cochran Meeting Room (3rd Floor)

NOTICE:

These DRAFT minutes have not been approved and are not the official, approved record until approved by this council/committee (TC 2.03).

The meeting was called to order at 1307 hrs by Chairman Dean Tompkins. The meeting attendee list is as follows.

#	Member Status	Name	Position
<i>Voting Members – 9</i>			
1	Voting	Dean Tompkins	Chair; Prog Chair
2	Voting	Nick Agopian	Vice Chair
3	Voting	Gemma Kerr	Hdbk Chair
4	Voting	Paolo Tronville	Stds Chair
5	Voting	Chris Muller	
6	Voting	Jeff Roseberry	
7	Voting	Kyung-Ju Choi	
8	Voting	Matt Middlebrooks	
9	Voting	William Lull	
<i>Corresponding Members and Visitors - 23</i>			
1	Cor	Brad Stanley	Sec
2	Cor	Karin Foarde	Res Chair
3	Cor	Marilyn Listvan	Pubs Chair
4	Cor	Mark Stutman	Mem Chair
5	Cor	Kathleen Owen	
6	Cor	Bob Burkhead	
7	Cor	Catherine Jacquioid	
8	Cor	Eric Chen	
9	Cor	Jensen Zhang	
10	Cor	Mick Flom	
11	Cor	Phil Winters	
12	Cor	Rakesh Goel	
13	Vis	Brian Hafendorfer	
14	Vis	Cecily Grzywacz	
15	Vis	Charles Seyffer	
16	Vis	Christine Sun	
17	Vis	Chuck Rose	
18	Vis	Dave Schaaf	
19	Vis	Derald Welles	
20	Vis	Federico Noris	
21	Vis	Harris Sheinman	

#	Member Status	Name	Position
22	Vis	Jaak Geboers	
23	Vis	Jean Tetreault	
24	Vis	Ramsey Kropp	
25	Vis	Shane Tincher	
26	Vis	Stan Slabinski	

Introductions

- Recognize Chuck Wilkins, Section 2 Head
 - Described his role with TC 2.3
 - Presented Certificate to Dean Tompkins (Certificate of Appreciation) for his service as TC 2.3 Chair.

Chicago Minutes Discussion

- Page 2 – Update on Roster and roll positions
 - TC 2.3 At a Glance presented on screen
 - Rolling off of voting status
 - Bill Lull, Dean Tompkins, KJ Choi, ?? Mark Stutman (need Member Chair Clarification)
 - Rolling into voting status
 - Jianshun Zhang
- Show of hands for attendees of different membership status
 - 9 voting members (Nick Agopian, Bill Lull, KJ Choi, Chris Muller, Paolo Tronville, Gemma Kerr, Jeff Roseberry, Matt Middlebrooks, Dean Tompkins)
 - 10 corresponding members
 - 6 visitors
- Corrections
 - Typo in Roster needs to be fixed (should be voting since 7/01/08) – action item
 - Marilyn Listvan
 - Mark Stuttman
 - Matt Middlebrooks
 - Remove e-mails from minutes that get submitted to Erik Kuiper – action item
 - Kathleen’s name correction, remove “s” from Owens – action item
- Member chair needs to review all new member statuses – action item

Bill Lull moved to accept Chicago Minutes as corrected

- 2nd ed by Gemma
- 8-0-0-0 CNV

Subcommittee Reports

I. Membership (Subcommittee Chair Nick Agopian)

- Emergency Roster Change Additions – corresponding members
 - Charlene Bayer, Cecily Grzywacz
 - Check whether this is voting or non-voting member request – action item Member Chair

II. Research (Subcommittee Chair Karin Foarde)

- General Information
 - Research Subcommittee Chair's Meeting
 - These meetings are open, Saturday 0800 hrs
 - Submitters are invited to come and have a one on one discussion. This can assist in clarifying language and speeding up RTAR process
 - PMS must monitor research projects
 - ⇒ There are Research Project Performance Evaluation Forms that need to be filled out by the PMS Chair at the ASHRAE meetings and submitted to MORTS.
 - ⇒ Paper or e-mail is acceptable. Should be on the ASHRAE website and in the files outside the office. Make sure that you have paper copied and give Karin Foarde a copy or copy on an email submission.
 - Next submission date Sept 15, 2009.
 - Future Research Projects
 - ⇒ ASHRAE looking for strategic versus tactical research projects
 - ⇒ General Gold Topic of Potential Strategic Research Goals (coming Winter 2009)
 - EHC Request - Jensen Zhang
 - Request 2.3 participation to supporting an additional strategic goal on Airborne Infectious Diseases transmission and control
 - 9.8 Large Buildings request TC 2.3 help with a research project (cosponsorship)
 - Cecily Grzywacz requested TC 2.3 as a cosponsor
 - No RTAR is written
 - TC 2.3 would like to review the RTAR before sponsoring.
- Updates on Current Projects
 - 1) *1302-RP "Comparison of Gas Phase Air Filtration Equipment (GPAFE) Lab Tests to Field Experience. - CLOSED*
 - Final report, received in October 2007, was not acceptable. The PI has chosen not to complete the project; no satisfactory response was received from the PI. The PMC considers the project over. The PMC chair will prepare and submit the final disposition of ASHRAE sponsored research results.
 - 2) *1243-RP "Detection and Measurement of Gaseous Byproducts of Fungal Growth That Affect Indoor Environments - Phase II". - CLOSED*
 - Final report, received at ASHRAE in 2005 (?). The PMC chair will prepare and submit the final disposition of ASHRAE sponsored research results.
 - 3) *1457-TRP "By-product Production from Photocatalytic Oxidation Associated with Indoor Air cleaning Devices" - OPEN*
 - Ramsey Kropp Ph.D. student, presented progress and proposed a list of chemicals to include in the project.

- Kathleen Owen has agreed to take on the responsibility of PMC chair since Erik Kuiper has been unable to attend ASHRAE meetings.
- Dean Tompkins requests a no cost extension up to 12 months
- ⇒ The PhD student assigned to this project changed plans for education and project start was delayed.
- ⇒ Passing in family also impacted the timeline
- ⇒ **Bill Lull moves to approve 12 month no cost extension**
Gemma 2nds
8-0-0-0 cnv

- TC 2.3 2009-2010 Research Plan

- 1) *Comparison of passive and active air cleaners in duct-testing to support development of 145.2P for air cleaners that are “active” - energetic or chemical.* (Byproduct analysis focus) (Charlene Bayer)
 - 2) *Odor retention and release from heat recovery and desiccant wheels* (Bill Lull)
 - 3) *Siloxanes (Si-) and mercaptans (S-) as compounds that affect air cleaner performance* (Ramsey Kropp)
 - 4) *Sorbents as Air Cleaners* - Use of 145.1 “test rig” to study ability to regenerate desiccants upon cycling them through fresh-hot-purge gas (RP475 ... dozens of compounds studied). (Bill Lull)
 - 5) *Evaluating air cleaning technologies/devices for treating formaldehyde* (past R&D work is/can be/ relevant?!) (Jensen Zhang)
- **Gemma Motions to accept these research projects as listed**
Bill Lull 2nds
8-0-0-0 cnv

III. Program (Subcommittee Chair Dean Tompkins)

- Forum 4 was held yesterday with more than 100 attendees
- Seminar 52 on Wednesday (Mark Stutman, Chris Muller, Jeff Siegel fill in)
- Programs for Orlando - January 23-27, 2010 (THEME - Humidity & Sustainable Indoor Environments)

Type	Title	Co-Sponsor	CHAIR	Interest
FORUM	Should Gas-Phase Filtration be part of Typical Use of Std. 62?	62.1, GPC 27	Bill Lull	12
SEMINAR	Formaldehyde Cleaning Devices	None	KJ Choi	12
SEMINAR	What is Needed to “Fix” the Standard 62.1 for Gas-Phase Filtration?	62.1	C. Muller	12
SEMINAR	Sustainability Success Stories, Local ASHRAE – Get Operations Types Involved	none	B. Burroughs	1
TRANSACTIONS	“Data Center Environmental Control”	9.9	Joe Priscoe	

- **Bill Lull motioned to accept program as listed**
 - **Gemma 2nd**
 - **Discussion**
 - **Chairs of each program should decide which track each Program should go into – action item**
 - **8-0-0-0 cnv**

IV. Handbook (Subcommittee Chair Gemma Kerr)

- 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) Ch. 11 Air Contaminants in Fundamentals,
 - Matt Middlebrooks resigned as Reviser for Chapter 45 due to pressure of work. Gemma Kerr agreed to act as Reviser for the next year to implement changes before the chapter submission deadline (March-July 2010).
- Work was assigned to Handbook Subcommittee Meeting attendees
 - Outstanding work needed are as follows
 - Equations need review (single zone, well mixed for contaminants)
 - ⇒ Paolo and Cecily volunteer
 - Help on section Dangers of Ozone air cleaners for indoor air problem resolution
 - ⇒ Karin suggests only referencing state regulations, but not stating specifics because they change so often
 - ⇒ No volunteer
 - Add information on UL Ratings of air cleaning equipment
 - ⇒ No volunteer

V. Standards (Subcommittee Chair Paolo Tronville)

- Minutes handed out from Standards Meeting
- GPC 27 P is continuing
- SPC 145 decided to drop 145.3 (due to lack of expertise and leader for field test; field measurements also point toward a guideline versus standard)
- Possibility to participate in US TAG to ISO. If interested contact Matt Middlebrooks. – action item
- MOT - Method of Test for Ozone Emission for IN-Duct electrically powered air cleaners
 - Purpose and scope have been completed
 - Jeff Siegel has become less available, but expected to return.
 - Will the TC approve the purpose and scope of this Method?
 - Discussion
 - ⇒ Very important because method of purifying the air (185) does not address any ozone production measurements
 - ⇒ Need at least 5 people interested to do such a project. Jeff Siegel will be one. Are there 4 more?
 - Jeff Siegel (composer of 1st Draft)
 - Coauthor David Chognowski

Dr Jianshun (Jensen) S Zhang, PhD
Dean Tompkins, Rakesh Goel, Federico Noris, Ramsey Kropp, Mick
Flom, Eric Chen

⇒ **Paolo motioned to approve the Title**

Nick Agopian 2nd

Discussion

**Volunteers should work on Title, Purpose, and Scope along
with Jeff Siegel before it is approved**

Not voted – review and do a letter ballot – action item

- Chris Muller review of 145
 - 145.2 – NO₂ requires analysis of byproducts, NO₂ and NO must be measured
 - Formaldehyde is the required aldehyde
 - Table 6.1 – shows concentrations and contaminants
 - No resolution on required acid gas, there will be a letter ballot
 - Need TC 2.3 to vote on 145.3 – test method for field installed test devices
 - Only title, purpose and scope developed
- ⇒ **Chris Muller motioned that TC 2.3 drop 145.3 from 145**
Paolo 2nd
8-0-0-0 cnv

VI. Publications (Subcommittee Chair Marilyn Listvan)

- Went through papers on list and members who missed subcommittee meeting, requesting progress – See Publications Subcommittee minutes for details on these papers.
- Paolo and Marylin to talk offline about ISO Standard summary article
- Nick Agopian Paper *P&P field studies paper –Cu coupons (corrosion measures). For “IAQ Proceedings”*
 - Will be reviewed by several committee members - Brad Stanley, ML, Mark Stutman, Christine Sun
- IAQ Procedure article written by Nick Agopian - *How can we apply filtration to reduce Outdoor air with IAQ method*
 - Will be reviewed by same reviewers - Brad Stanley, ML, Mark Stutman, Christine Sun, Jeff Roseberry
- IAQ Design Guide available for preorder.
- Healthy Buildings Papers approved
 - Brad Stanley
 - Charlene Bayer
 - Christine Sun
- IAQ 2010 Needs Reviewers
 - E-mail Jensen Zhang
- Call for reviewers of papers in TC 2.3 arena – action item
 - E-mail Marylin Listvan
- Call for Bibliography – action item
 - E-mail Marylin Listvan

VII. Professional Development Coordinator (Barney Burroughs)

- Barney Burroughs was absent
- Barney Burroughs won the Environmental Health Award from ASHRAE

VIII. Planning (Subcommittee Chair Nick Agopian)

- Succession Planning
 - Identified Mark Stutman, Kathleen Owen as next Secretaries
 - Recommend succession plan for 145 (Vice Chair needed)
- Need New Members
 - Consulting Engineers, Users, Specifiers
- Minutes Request
 - Minutes Due out month after meeting

IX. Website (Subcommittee Chair Erik Kuiper)

- Erik Kuiper has new e-mail address
- Summarized changes on website
 - Management will be revised
 - Objectives – slight revisions
 - Functional changes for broken links
 - Bibliography addition
 - Management By Objective will be posted here.

End of Subcommittee Reports

MBO – Management by Objective (Dean Tompkins)

- Summarized MBO – Spreadsheet tracking action items and objectives
- Filled out draft of MBO Plan (Word doc) during meeting.
 - Filled in General Topics of Concern and Opportunity
 - MBO objectives were drafted in the meeting and will be worked on by management during break between meetings.

Reports from TC liaisons

- TC 4.10 – Gemma – Indoor Environmental Modeling
 - Work on material emissions is taking place - Jensen Zhang
 - Work is taking place on assessing the impact of materials on emissions and IAQ
- 62.1 – Chris Muller
 - Working on revamping IAQ Procedure
 - Current review draft of 189 requires ozone air cleaning in any nonattainment area, vs only 4 counties of current version
- TC 9.11 – Matt Middlebrooks
 - Guideline for Cleanrooms has sections on AMC and Filtration which may be of interest to 2.3
- TC 9.9 – Chris Muller
 - Transactions papers –on particulate contaminants and gaseous contaminants

Miscellaneous Items and New Business

- Thank you letters to employers are available through online form from ASHRAE
- Hightower award nominations are online
- Management switch over has been discussed among TC management. One outcome will be increased communication (“Touch you and touch you often”).
- Plaque presented to Dean Tompkins by Nick Agopian from the TC.

Adjournment

- **Marylin motion to adjourn**
Gemma 2nd
9-0-0-0