

## ASHRAE MEETING MINUTES - Nashville

### TC 2.3 - Gaseous Air Contaminants/Removal Equipment TC Meeting

Tuesday, June 29, 2004

13:00 - 15:30

Opryland Hotel – Tennessee Ballroom B

#### NOTICE:

**These meeting minutes have been approved and are official.**

- The meeting was called to order at 13:00 pm by Chairman Doug VanOsdell. The attendees that completed the meeting attendee sheet(s) were:

Name	Email address
Doug VanOsdell (Chairman)	dwv@rti.org
Eric Kuiper	erik@ashrae.org
Gemma Kerr	gemma.kerr@inairenvironmental.ca
Brian Krafthefer	brian.krafthefer@honeywell.com
Bob Burkhead	bobburkhead@blueheavenky.com
William Lull	william.lull@verizon.net
Dean Tompkins	dtompki@wisc.edu
Bob Hendry	bob.hendry@gtri.gatech.edu
Karin Foarde	kkf@rti.org
Chris Muller	chris_muller@purafil.com
Phil Winters	pwinters@filtrationgroup.com
Derald Welles	dwelles@ix.netcom.com
Marilyn Listvan	listv001@umn.edu
Nick Agopian	nagopian@dectron.com
Christopher Flaherty	cflaherty@dectron.com
Steve Zitin	shz1@meadwestvaco.com
Stan Slabinski	sslabinski@bry-air.com
Ron Domitrovic	rdomitrovic@atmosphericglow.com
Kyung-Ju Choi	kchoi@aafintl.com
E.C. "Chuck" Schroeter	fsifla@bellsouth.net
Monroe Britt	mbritt@clair.com
Michael Corbat	mcorbat@filtrationgroup.com
Jeff Roseberry	jeffr@promarkassociates.com
Anthony Jobe	tjobe@kcc.com
Charles Seyffer	cseyffer@nycap.rr.com
Paula Levasseur	paula@cglcarbon.com
Morton Blatt	mhblatt@earthlink.net

Bill Leedy	wbleedy@meadwestvaco.com
John Vunovich	john.vunovich@huntermfgco.com
Art Soma	art.soma@huntermfgco.com
Terri Wytko	twytko@ari.org
Steve Donagh	stephanm@doh.state.ri.us
Kenneth Heffley	heffleyk@camfilfarr.com
Dean Saputa	deans@uvdi.com
Forrest Fencl	flfencl@msh.com
Ez Khalifa	ez@ecs.syr.edu

- Attendee’ self-introductions were made.
- Doug received a citation for meritorious service.
- Roster check was made. Voting members present at the TC meeting include:

- 1) Doug VanOsdell (chair)
- 2) Brian Krafthefer
- 3) Marilyn Listvan
- 4) Gemma Kerr
- 5) Nick Agopian
- 6) Derald Welles
- 7) Chuck Schroeter
- 8) Chris Muller

Dr. Paul Nelson, Charlene Bayer, Matt Middlebrooks, and Paulo Tronville were absent. A quorum was achieved with 8 voting members present out of a total of 11 (Paulo does not count against the number of voting members.)

Corresponding Members Present – 5  
Voting Members present – 8  
Guests – 0  
Total - 13

- A motion was made and seconded to approve the meeting minutes of Anaheim. There was no discussion. **Voting on approval of the Anaheim minutes was as follows: 8, 0, 0, 3, 11 (for, against, abstain, absent, total).**

**Subcommittee Reports Made:**

**Planning (Eric Kuiper, Chair)**

- Doug Van Osdell provided/discussed a presentation for education purposes. Long-range planning was discussed. Participation is requested.

### **Membership (Paul Nelson, Chair, Report made by Doug VanOsdell)**

- Three current voting members will be rolling off - Marilyn Listvan, Doug VanOsdell, and Charlene Bayer. Eric Kuiper, Bob Hendry, Karin Foarde, and Ez Khalifa will be rolling on as voting members after the Nashville (June 2004) ASHRAE meeting. Currently there are 6 corresponding members that need to be rolled up. The TC 2.3 leadership team after Nashville meeting will be:
  - Chair – Eric Kuiper
  - Vice Chair – Dean Tompkins
  - Secretary – Matt Middlebrooks
  - Research – Karin Foarde
  - Planning – Dean Tompkins
  - Membership – Nick Agopian (Nick volunteered to become Membership chair).
  - Standards – Brian Krafthefer
  - Program – Dean Tompkins
  - ALI Coordinator (ASHRAE Learning Institute) – Doug VanOsdell
  - Handbook – Gemma Kerr
  - International – Paulo Tronville, Eric Kuiper
  - Website – Nick Agopian
  - Publications – Marilyn Listvan

Meeting attendees desiring to become corresponding members were asked to indicate this on the meeting attendee sheet(s). Doug VanOsdell submitted these names to ASHRAE for consideration as corresponding members.

### **Program (Dean Tompkins, Chair)**

- **Programs presented in Nashville, TN (June 27 – June 30, 2004):**
  - FORUM 17: What work needs to be done to done to Properly Apply UVC Lights (Chair: Mort Blatt)
- **Program items for future meetings were prioritized through votes of attendees as follows:**

Orlando, FL (February 5-9, 2005)

#### **RANK**

- 1 SEMINAR:** Filtration for Improved Indoor Air for Hospitals (co-sponsor with TCs 2.4 and 9.8; Chair: Chuck Schroeter, Chris Muller)
- 2 FORUM:** Filtration/IAQ Needs for ... Marine Environments and Cruise Ships (co-sponsor with TC 2.4; Chair: Charlie Seyffer)
- 3 SYMPOSIUM:** IAQ - Filtration (co-sponsor -TC 2.4; Chair: KJ Choi)
- 4 SYMPOSIUM:** Applications of UV Photocatalysis for Gaseous Contaminants (Chair: Marilyn Listvan)
- 5 SEMINAR:** AMC Standards for Clean Rooms (co-sponsor TC 9.11; Chair: Matt Middlebrooks)

**A motion was made and seconded to accept the as ranked order shown above for Programs for Orlando (Voting Results: 8, 0, 0, 3, 11 (for, against, abstain, absent, total)).**

DENVER, CO (June 25-29, 2005)

**SEMINAR:** Getting Back to Basics (Chair: Doug VanOsdell)

**SEMINAR:** Proper Application of UVC Lights (co-sponsor TC 2.4; Chair: Mort Blatt)

**FORUM:** Review/Update on Odor (Chair: Brian Krafthefer)

**FORUM:** Development of Worldwide IAQ Standards (co-sponsor TC 2.4; Chair: Paulo Tronville)

CHICAGO, IL (January 21-25, 2006)

**SYMPOSIUM:** VOC Emission / Adsorption & IAQ (co-sponsor with TC 4.10; Chair: Gemma Kerr)

**SEMINAR:** Gas-Phase Filtration: Case-Studies (Chair: Dean Tompkins)  
(Case study offered by Bill Lull)

**FORUM:** Measurements of Gas-Phase Contaminants: Who's Kidding Whom?  
(Chair: Bill Lull)

#### **Handbook (Gemma Kerr, Chair)**

- TC 2.3 is responsible for three Handbook chapters. Two of the chapters – Ch. 12 (Air Contaminants) and 13 (Odors) in Fundamentals (2005) Handbook. Fundamental changes are sought in Chapter 12:
  - Ch. 12 is a more significant review; several individuals are facilitating the process of reviewing/editing Ch. 12, including Karin Foarde (bioaerosols), Brian Krafthefer (Table 10 (NAAQS) and combustible and radioactive gases), Doug VanOsdell (special air contaminants), Nick Agopian (industrial air contaminants and flammable gases and vapors), Derald Welles and Chuck Schroeter (non-industrial air contaminants), . one will likely get a month to review Ch. 12 changes. October 2004 is the deadline for approval for Ch. 12. One question came up regarding a draft final version by the middle of August. Can voting members of the TC act as reviewers?
  - A final, clean version of the revised Ch. 12 is to be submitted to by Gemma to the Handbook subcommittee by August 15, 2004 for final review. Comments on this final draft are to be received by Aug. 27, 2004. Gemma will send to Eric Kuiper a revised version by Sep. 3, 2004. Erik will send out a letter ballot by Sep. 10<sup>th</sup>. Erik Kuiper and Gemma Kerr will tally the vote by Sep. 24, 2004. Gemma will submit a revised Ch. 12 and associated paperwork by October 1, 2004.
- There was a recommendation for Ch. 13 to be submitted to ASHRAE in the original form. **A motion was made and seconded with no discussion to approve the Chapter 13 without changes of it from the past version. The voting results are: 8, 0, 0, 3, 11 (for, against, abstain, absent, total).**

- Chapter 45 (Applications Handbook – Gaseous Contaminants Removal Equipment, Doug VanOsdell, Chair) will be coming up next year. Work will begin on this at the Orlando meeting. Case study examples are sought and requested from members of the committee.
- The paper version of the Handbook is considered as the official ASHRAE document.

### **Standards (Brian Krafthefer, Chair)**

- Reviewed 62.1, 62.2, 145P, 161. Discussed Standards from around the world.
  - 62.1 – An editorial change in 62.1 has incorporated a new NAAQS table of outdoor contaminants and the updated reference to the EPA NAAQS table.
  - 62.2 – is now published and is in continuous maintenance.
  - 145P – There was no quorum at the meeting and so 145.1 was reviewed and will be voted on by ballot.
  - 161 – the aircraft cabin environments standard is ready to go out for public comment by the end of 2004. GPC17 will be added to this document for particle measurement.
- A title, purpose, and scope for a Guideline entitled
  - “Measurement procedures for gaseous contaminants in indoor environments”

**A motion was made and seconded with no discussion to approve the draft Guideline; voting results are: 8, 0, 0, 3, 11 (for, against, abstain, absent, total).**

### **Research (Karin Foarde, Chair)**

#### **Presentation / Up-date on Current Research Projects:**

- Re: 1098 RP – “Field Test Methods to Measure Contaminant Removal Effectiveness Of Gas Phase Air Filtration Equipment - Phase II Field Study [Principal Investigator – Charlene Bayer (Georgia Tech Research Corp.) [PMC – Gemma Kerr (Chair), Bill Lull, Matt Middlebrooks, and Paul Nelson]:”
  - **The final report was received and approved. The technical paper submitted and is in review.**
- Re: 1243-RP – “Detection And Measurement Of Gaseous Byproducts Of Fungal Growth That Affect Indoor Environments - Phase II [Principal Investigator – Don Cortes/Elliot Horner (AQS) [PMC – Karin Foarde (Chair), Paul Nelson, Brian Krafthefer, Marilyn Listvan, Gemma Kerr and Charlene Bayer]:”
  - **Elliot Horner, AQS was not present at the meeting but communicated with Karin Foarde prior to the meeting and provided a brief overview and up-date. The report for Phase I was approved by the PMC on May 3, 2004 and Phase II has been initiated. AQS has a no cost extension until December 31, 2004.**

**Work Statements and RTARs were submitted:**

- RTAR #2005-44 was returned with comments. Comments given to N. Agopian and he will resubmit by August 1, 2004. B. Krafthefer, C. Bayer, E. Horner, and M. Middlebrooks will assist in the re-write.
- RTAR #2005-42 was accepted. C. Muller and P. Tronville will write the work statement and send out survey for labs:  
*Inter-Laboratory Evaluation of Test Method for Gas-Phase Air Cleaning Media in Support of Approval of ASHRAE SPC 145.1* (authors: Chris Muller and Paulo Tronville).
- RTAR #2005-43 was accepted. B. Hendry will resubmit by August 1, 2004.
- RTARs are due to Karin Foarde by July 21, 2004. RTARs due to RAC by August 1, 2004. It is highly recommended that the RTARs need to reflect: 1) Value to ASHRAE Members and 2) Value to Consulting Engineer.
- **The RAC prioritized RTAR #2005-42 needs to be drafted into a work statement for submission to Mike Vaughn by Sep. 1, 2004. The work statements need to be sent to our RAC Section 2 Liaison for review and comment by August 5<sup>th</sup>, 2004. Once his comments are addressed, the TC needs to vote. Any abstentions or negatives have to be explained to RAC at the time of submission.**
- Work Statement WS-1302, "Comparison GPAFE Lab-Tests to Field Experience", was submitted on Feb. 10, 2004 and is approved for bidding, but on hold for the next round of available funds.

### **2004-2005 Research Plan**

The TC 2.3 Research Plan was developed and prioritized as follows:

#### Priority

- 1) Inter-Laboratory evaluation of test method for gas-phase air cleaning media in support of approval of ASHRAE SPC 145.1 (Chris Muller).
- 2) By-product production from photocatalytic oxidation associated with indoor air cleaning devices (Bob Hendry)
- 3) ETS removal effectiveness for SSPC 62 (Larry Schoen and Chris Muller)
- 4) Determining/evaluating remaining life of filterbed material (William Lull)
- 5) How would gas-phase/particulate filtration equipment protect against an external/internal release of threat agents (Nick Agopian)
- 6) Design based on contaminant loads for SSPC 62 (Andy Persily/Chris Muller)

Motion was made to approve the prioritized order list above; seconded: **The motion to approve the 2004-2005 Research Plan was made, seconded, discussed, and voted on: 8, 0, 0, 3, 11 (for, against, abstain, absent, total).**

- There is a cover sheet now for/when submitting/editing work statements to include a list of bidders, with 3 of the bidders being other than you, assuming had a hand in the work statement. You can not author the work statements directly and then bid on them.

**Publications (Marilyn Listvan, Chair)**

- The (joint 2.3, 2.4) Publications Meeting was held and had 17 members present.
- There are some special publications being developed:
  - Steve Comstock has agreed for the committee to perform scanning of its documents for archival. Marilyn has 7 volunteers to perform scanning.
  - ASHRAE Journal is looking for articles. Writing of papers is requested.
  - ETS Design Guide – Nick Agopian has been working on this guide with other committee members. It is going through its third revision. The Design Guideline does address using filtration with gas and particle phase removal equipment in addition to make-up air. This is not a standard, rather a guideline.
  - Request was made to act as reviewers for these papers.

**Website (www.ashrae.org) (Nick Agopian, Chair)**

- Website will be hosted by a new section. There will be a secret section.
- There will be a link to
- ASHRAE has updated the web-site size/space to 30 MB.

**TC Liaison Work:**

None

**New Business:**

Section 2 now gets together at the ASHRAE meetings. They are working on e-mail aliases to ease the effort to communicate with other chairs in Section 2.

**A motion was made to adjourn the meeting, seconded. The voting results: 8, 0, 0, 3, 11 (for, against, abstain, absent, total).**

Meeting adjourned at 14:44.