

**Draft Meeting Minutes,
TC 2.01 Physiology & Human Environment
Winter 2012, Chicago, Ill. 6/24/2012**

Meeting schedule	Day	Time
TC 2.01 Physiology & Human Environment	Tuesday	1:00-3:30P
TC 2.01 Research	Sunday	1:00-3:00P
TC 2.01 Programs	Sunday	3:00-4:00P
TC 2.01 Handbook	Sunday	4:00-5:00P
TC 2.01 1504-TRP	Tuesday	8:00-9:00A
TC 2.01 1515-TRP	Tuesday	9:00-10:00A

TC 2.01 Chicago Programs

Seminar 14: Why Are We Overcooling Buildings in Summer?

Sunday 1:30-3:00P Adams

1. Oversized Air-Conditioning Systems and Overcooled Buildings in Hot and Humid Climates. Chandra Sekhar, Member, National University of Singapore, Singapore, Singapore
2. International Perspectives, Avoidance of Overcooling and Developing Appropriate Thermal Comfort Standards, Kenneth C. Parsons, Ph.D., Member, Loughborough University, Loughborough, United Kingdom
3. Why Is it too Cold? Explanations and Solutions Gwelen Paliaga, Member, Taylor Engineering, LLC, Alameda, CA

Main Committee

1. Call to Order– Mark Jackson 1:00 PM
2. Read Scope: Mark Jackson read the committees scope statement: TC 2.01 is concerned with the relationship of man’s living environment, as altered by air conditioning, heating, and ventilation systems to his comfort, health and productivity.
3. Introduction of Members, Guests, and Liaisons: See attached. Guests are strongly encouraged to submit contact information to chair or vice-chair to be added as provincial CM. Roll call taken, 5 voting members present, 1 non quorum member, 13 CM’s, 1liaison and 6 guests. Quorum reached.
4. Montreal Minutes Approval: Motion by Bill, second Chandra, approved 7-0-0 CNV

MEMBERS	Rolling Off after San Antonio	Quorum check
Ed Arens	X	
Jim Bushnell	X	
Jaap Hogeling	X	
Chandra Sekhar	X	
Paul Lebbin	X	
Shin-ichi Tanabe		

Peter Simmonds	X	
John Stoops		
Diotima von Kempfski (VM non-quorum)	X	
Not filled (VM non-quorum)		

5. New Voting Member Nominations: Lily Wang

Presently have 8 regular and 2 non-quorum members and 55 corresponding members. Lily read an update on the voting member list, changes to the roster were suggested:

Dennis Loveday

Lily Wang

Mark Jackson

Art Bushnell asked to rolloff due to anticipated non-attendance at the next two meetings

Diotema will roll off to Corresponding after San Antonio.

6. Liaison Reports

- TAC Section Head – Tom Sobieski, Section 2 head attended. Reported that roster changes are expected prior to leaving Chicago. TC activities report is due at the close of business on Tuesday, January 24. Program requests are to be submitted by February 13. Conference paper abstracts for Dallas are due March 19 with drafts submitted by July 2012.
- Chapter Technology Transfer Liaison – Mr. Jean-Gabriel Joannette No report
- Program Liaison – Mr. William Atkinson. No report
- RAC Research Liaison – Dr. Iain Walker. No report
- ALI / PDC Professional Development Committee (EDUC) Liaison – Mr. Kenneth Fulk. No report
- Special Pubs Liaison – Mr. John Clark. No report
- Handbook Liaison – Mr. John Wells III – Jill Connell (Ch 9 Thermal/Ch 12 Odor) No report
- Standards Liaison – Mr. Hoy Bohanan. No report
- Staff Liaison (Standards) – Mrs. Claire Ramspeck. No report.
- Staff Liaison – Mr. Michael Vaughn. No report.
- Std 55 Liaison – Gwelen Paliaga (and John Stoops). No report.
- Liaison from TC 9.7(Educational Facilities) & 9.6 (Healthcare) – Ron Westbrook. TC 9.6 is completing updates to the ASHRAE Health Care

facilities HVAC design manual, 2nd Edition. Draft to be delivered by San Antonio meeting.

- Liaison from TC 2.6 (Sound & Vibration) – Kenneth Roy

7. ASHRAE Design Guidelines – treatment of indoor environmental issues –

8. Chair's Report – Mark Jackson for Paul Lebbin

9. Subcommittee Reports

9.1 Programs – Mark Jackson (acting) – need new chair to replace Jim Bushnell
Program Sub-committee: ~3:00 – 4:00 PM

- Seminar on “why are thermostats set for over heating” to be withdrawn from San Antonio meeting.
- Seminar “Thermal comfort models for design and evaluation” (co-sponsor by Std 55) is planned for next winter meeting (Dallas).
- Possible seminar topics:
 - “In the Comfort Zone or in the Court? How to stay in the 1st and stay out of the 2nd.” Litigation associated with thermal comfort” by Ken Parsons.
 - “Elevated temperature acceptance using air movement: from research to practice” Zhang Hui, Ed Arens

9.2 Research – Hui Zhang TC2.1 – Research Committee Meeting Minutes, Sunday, January 22, 2012 1:00 – 3:00 PM
(Research subcommittee report attached).

- Bill McCoy, RAC Liaison RTAR and WS being returned:
 - RTAR -Low Humidity Effects
 - Coordinate with TC 5.11
 - WS-1624 – Schools and ventilation
 - Not biddable
 - Need better task list and address comments on cost
- Motion to co-sponsor RTAR to develop IAQ Guide for Residential applications with EHC
 - Jackson/Levin 2nd to develop 11-0-0
- Thermal insulation ensembles study – started 1/12/11
 - Typical daily non-western clothing ensembles,
 - Determine Clo values
 - Currently identifying everyday items of clothing at office and homes
 - Identification of ensembles complete by end of February
 - Dr. Fang has moved from Hong Kong to Cornell – will continue on project
 - Testing program for 9 months, then report

- An update in San Antonio.
- Question on variability of fit – any test for mis-fitted ensembles?
- Question – moisture transfer and storage? Fiber type, weave density, etc.
- Question (Erens) – can Clo value be provided for multi-segment model?
- Potential RTAR – interaction between air quality and air movement preferences
- Potential RTAR – interaction of CO₂ levels, air quality and thermal preferences
 - Berkeley – impact on high cognitive performance on high levels of CO₂
 - HB in Singapore on CO₂
 - Pawel (champion) response to CO₂/air quality on – different CO₂ and temperature levels vs. physiological responses: sweating, skin temperature, CO₂ in exhalation (as proxy for tidal concentration in blood),
 - Human bio-effluents & CO₂ – how much ventilation is needed to eliminate impact of bio-effluents (test in a glass box)
 - Fundamental requirements for ventilation – comfort and physiology
 - HRV, Pa_{O₂} and Pv_{O₂} (Jackson)
 - Look at whether certified buildings (LEED, etc.) effect IEQ
- Potential RTAR – interaction of olfactory substances and thermal preference
- Potential RTAR – elderly response to T, %RH,
- Emission rates based on 0.5 ACH, may be too high or too low for specific environment
- Diotima von Kempfski has been funded by an auto company to look at multi-parameter interactions including: T, %RH, olfactory substances, etc. in a chamber study in Germany. Bill Cain is involved in the study.
- Joon-Ho Choi is working on lighting control based on pupil diameter using ski goggle size glasses to track pupil size.

NOTE: I don't have complete information on these research projects and I couldn't tell which project numbers might correspond with the notes above. Can you add?

RP 1515 –
 RP 1504 –
 URP 1654 –
 WS 1624 –

Low RH RTAR –

9.3 Honors and Awards – Mark Jackson for Paul Lebbin Ralph G. Nevins Award:
Awarded to Lily Wang of TC 2.1. Congratulations Lily!

9.4 Handbook – Eric Adams Eric requested member help in reviewing Standard 55 for 'crossover' positions on

9.5 Webmaster – Ron Westbrook

Will investigate options for interactive social networking. ASHRAE does not restrict closed activity, Commercialism policy must be followed. Security of members personal information is top priority.

10. Old Business

11. New Business

Committee went into executive session with all members and attendees from Cal Berkeley and associated researchers excused to review unsolicited research proposal

URP 1656:

Motion to approve Simmonds, seconded Bushnell. Disapproved 0-4-0 CNV

12. Adjourn. Motion to adjourn by Simmons. Seconded Adams(?). Approved.

Next meeting, San Antonio, TX. Tuesday, June 26 1:00-3:30 PM