

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-  
CONDITIONING ENGINEERS, INC.

1791 Tullie Circle, N.E./Atlanta, GA 30329

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**TC/TG/TRG MINUTES COVER SHEET**

(Minutes of all TC/TG/TRG Meetings are to be distributed to all persons listed below within 60 days following the meeting.)

TC/TG/TRG NO.: TC 4.10 DATE: June 30, 1997

TC/TG/TRG TITLE: Indoor Environmental Modeling

DATE OF MEETING: Monday, June 30, 1997 LOCATION: Boston Mass.

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
<u>Voting:</u>				Carl Speich
Mo Hosni	93	Zhenhai Li	96	Jane Z. Jiang
Kevin Knappmiller	96	John Janssen	95	Diohma von Kempfski
Dan Clark	95	George Sestak	96	Per Heiselberg
Qingyan (Yan) Chen	96	Shuzo Murakami*	94	Shinzuke Kato
Chuck Gaston	95			Dong Yang
Ray Horstman	96			Xiaoxiang Yuan
Jianshun Zhang	93			Dale Montglomery
Steve Emmerich	96			Kim Hagstram
Gemma Kerr	96			Walter Schwarz
Arsen Melikov*	95			Andy Manning
				Farzad Baban
				C.Y. Shaw
*international member				Richard Grot
<u>Corresponding:</u>				
Dave Ensor				
Allan Kirkpartrick				

**DISTRIBUTION:**

ALL MEMBERS OF TC/TG/TRG

R&T SECTION HEAD: Terry E. Townsend

ALL COMMITTEE LIAISONS AS SHOWN ON TC/TG/TRG ROSTERS:

James H. Norman, Francis J. Offermann III, William Seaton, James Norman, Jim Heldenbrand, John

H. Stanley, B.W. Ward

## ASHRAE Meeting Minutes - Boston

### ***TC 4.10 - Indoor Environmental Modeling, Main Committee Meeting, Monday, June 30, 1997, 2:15 PM***

The meeting was called to order at 2:18 pm by Chairman Mo Hosni.

All those present introduced themselves by name and affiliation.

Eight of fourteen voting members were present at the roll call.

Approval of Philadelphia minutes 8-0-0.

Announcements were made:

- Must select handbook chairman. Ray Horstman is handbook chair.
- Plan to send handbook chapters out for external review.
- ASHRAE wants to change meeting times of TC's to avoid conflicts. Potential parallel TC and Program sessions. Proposed to move some TC sub-committee meetings to Saturday.
- ASHRAE may impose limits on program sessions.
- Technology weekend moved forward 4 weeks to Oct 18, 19. Must submit workstatements by early September.
- SPC 167P Model Safety Code for Mechanical Installations is asking for members.
- One page WS summaries need to be to J. Zhang by July 20.
- Dick Rivers sent letter to M. Hosni. He cannot attend meetings but will continue to help with Handbook.
- Due to limited number of W.S. submitted last year there is extra funding available now.
- New Section Head is Jeff Bishop.
- Membership.** New officers announced. The 1998 membership roster was passed around to check accuracy.

Gemma Kerr arrived, nine of 14 members present.

**Research-** Dan Clark reported results of subcommittee meeting.

WS-1009 was rewritten to respond to R& T comments and redistributed to committee members. A motion was made and seconded to approve this for resubmission to R&T with minor editorial changes. Passed 10-0-0.

PES committee on 978 TRP met. Recommendation was made to select Kansas State University as the contractor. Motion made and seconded to approve 7-0-3. (Abstentions due to people being associated with bidders.) PMS members Steve Emmerich, Farzad Baban, Ray Horstmann, Jianshun Zhang, and Kevin Knappmiller were identified.

RP-903 Experimental Validation of Multizone Models for Predicting Air Contaminant Transport in High Rise Buildings PI, Gren Yuill has had surgery and could not come to the meeting. Good progress is being made on the project as reported by PMS. Separately scheduled PMS meeting suggested for San Francisco.

Motion made to approve the following as the prioritized research plan.

1. Simplified Diffuser Boundary Conditions for Numerical Room Airflow Models (Emmerich and Knappmiller)
2. Guidelines for using CFD for conducting CFD studies (Walter Schwartz and Elliott Gordon)
3. Modeling low velocity large scale fluctuating flows (Horstman)
4. Determination of turbulent length and time scales in ventilated rooms (Yan Chen)
5. Modeling computer rooms with large heat loads. (Emmerich and Roger Schmitt)

**Program-**

We had a successful seminar Monday morning with about 85 attendees.

The following items remain on our program list with the corresponding session chair:

1. San Francisco Symposium "Advanced Turbulence Models for Room Airflow Predictions", Chen. Three papers remain on list.
2. San Francisco Symposium "Recent European Research on Accuracy of Low-Velocity measurements." We are cosponsoring with TC 1.2. Melikov.
3. Toronto Symposium "Methods for Characterizing Indoor Sources and Sinks." Haghayat
4. Toronto Seminar Modeling computer rooms with large heat loads. Schmidt.

5. TorontoSymposium"Applications of Multi-Zone airflow and Contaminant Models to performance of Residential ventilation systems. Emmerich.
6. ChicagoSymposiumModeling and measurement of VOC emissions from building materials. Yan Chen. Co-sponsor with TC 2.3.

This program list is approved 10-0-0.

**Handbook-** Ray Horstman has developed a draft of a new chapter for the handbook of fundamentals. He sent out copies for review at the last meeting and has not received any responses. He is asking for responses and review.

**Standards-** Chuck Gaston volunteered to be the standards subcommittee chair. No standards currently being worked. No new business. Add PMS report on RP 941 under research report for San Francisco meeting. Moved and seconded to submit a letter to Program committee that they should not schedule technical program sessions during our TC time slot. A motion was made and seconded to adjourn. The meeting was adjourned at 4:17 PM.