

AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR-CONDITIONING ENGINEERS, INC.  
1791 Tullie Circle, N. E. Atlanta, GA 30329  
404-636-8400

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: 5.1

DATE February 12, 2007

TC/TG/TRG TITLE FANS

DATE OF MEETING January 29, 2007

LOCATION Dallas, Texas

**MEMBERS PRESENT**

**YEAR MEMBERS ABSENT  
APPTD**

**YEAR  
APPTD**

**EX-OFFICIO MEMBERS  
AND ADDITIONAL  
ATTENDANCE**

Joe Brooks	2004	John Cermak	2003	Paul Heitzmann - CM
George Gamble	2003	Walter Ziemann	2004	Jim Schick - CM
L.Z. Zeng	2005			Zhiping Wang - CM
David Carroll	2004			Steve Idem - CM
Charles W. Coward	2003			Asesh Raychaudhuri - CM
Brent Fullerton	2004			Peter Baade - CM
Brian Reynolds	2003			Franco Cincotti - CM
Rad Ganesh	2003			Tom Sobieski - CM
Tim Mathson	2004			Curt Eichelberger
John Murphy	2005			Dustin Meredith
				Ted Comes
				Kim Osborn
				Bob Valbrant
				Chip Cook
				Dick Williamson
				Mike Brendel
				Brian Simonson

**DISTRIBUTION**

*All Members of TC/TG/TRC plus the following:*

**TAC Section Head:** Gaylon Richardson

**TAC Chair:** Patricia Thomas Graef

**All Committee Liaisons - Handbook:** Cindy Callaway

**Professional Development:** Gordon V. R. Holness

**RAC Research:** Frederick H. Kohloss

**Program:** Riyaz A. Papar

**Special Publications:** Harvey M. Sachs

**Chapter Technology Transfer:** David R. Shugars

**Standards:** Jim Woods

**Manager of Standards:** Claire B. Ramspeck

**Manager of Research & Technical Services:** Michael R. Vaughn



**ASHRAE TC 5.1 FANS  
MEETING MINUTES  
Monday, January 29, 2007**

Adam's Mark Hotel

Dallas, Texas

**1. CALL TO ORDER**

Chairman Joe Brooks called the meeting to order at 4:25 P.M.

**2. ROLL CALL**

Members

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Joe Brooks - Chairman  | <input checked="" type="checkbox"/> George Gamble – Vice Chair - Secretary |
| <input checked="" type="checkbox"/> L.Z. Zeng – Research   | <input checked="" type="checkbox"/> Rad Ganesh                             |
| <input type="checkbox"/> John Cermak – Long Range Planning | <input checked="" type="checkbox"/> David Carroll                          |
| <input checked="" type="checkbox"/> Charles W. Coward      | <input type="checkbox"/> Walter Ziemann – Resigned                         |
| <input checked="" type="checkbox"/> Brent Fullerton        | <input checked="" type="checkbox"/> Tim Mathson                            |
| <input checked="" type="checkbox"/> Brian Reynolds         | <input checked="" type="checkbox"/> John Murphy                            |

Corresponding Members & Guests

Paul Heitzmann	Ted Comes	Bob Valbrant
Mike Brendel	Tom Sobieski	Chip Cook
Brian Simonson	Kim Osborn	Dick Williamson
Dustin Meredith	Franco Cincotti	Zhiping Wang
Asesh Raychaudhuri – Programs	Peter Baade	Jim Schick
Curt Eichelberger	Steve Idem	

**3. APPROVAL OF MINUTES**

John Murphy made a motion to approve the minutes of the meeting held on Monday, June 26, 2006 in Quebec City, Quebec. Chuck Coward seconded the motion. The minutes were approved by a vote of 10 to 0.

**4. ROSTER**

Ten (10) of twelve (12) voting members were present. A quorum was formed.

**5. ADOPTION OF AGENDA**

The meeting agenda was adopted by consensus.

**6. ITEMS OF BUSINESS**

**TC 5.0 SECTION HEAD REPORT**

No Report

**TC 5.1 LIAISON REPORTS**

1. **RAC Research** – No report
2. **Handbook** – No report
3. **Program** – No report
4. **Journal** – No report
5. **Standards** – No report

**CHAIRMAN REPORT – Joe Brooks**

- TC Liaisons were encouraged to attend the TC sub-committee meetings
- Riyaz Papar is the new TC 5.1 program liaison
- ASHRAE announced a new policy for speakers that included:
  - Speakers for transaction sessions will receive free registration for the entire conference
  - Speakers for seminar sessions will receive one day free registration for the conference
  - Moderators and forum leaders will not receive free registration for the conference
- ASHRAE requested membership feedback regarding the newly adopted schedule for transaction and seminar sessions
- Deadline for submittal of the Long Beach, California program is February 9, 2007
- The theme for the Long Beach conference will be “Natural Ventilation”
- The theme for the following conference, scheduled for New York, New York, will be “Zero Energy Design”

- Approval for changes to the 2008 edition of the ASHRAE Handbook must be completed at or before the June, 2007 meeting
- ASHRAE is emphasizing the importance achieving the goal of conducting paperless meetings. Brian Reynolds has volunteered to continue his effort to lead TC 5.1 toward meeting that goal.
- ASHRAE has established a strategic plan to achieve zero energy use in buildings and encourages all members to contact ASHRAE with any suggestions
- A new "Manual of Procedures" (MOP) will be published in two (2) months
- ASHRAE will now issue a certification for "Hospital Engineer"
- The Chapter Technology Transfer Committee is sponsoring a free web cast April 1, 2007 from 1 to 4 PM entitled "Indoor Environmental Design: Practical Solutions to Everyday Problems"

## **7. STANDARDS SUBCOMMITTEE – John Murphy**

### **7.1 SPC 87.1 Method of Testing Fan Vibration and Critical Speeds**

The ASHRAE Standards Reaffirmation Sub-committee (SRS) submitted the standard for "Public Review for Withdrawal". TC 5.1 has no interest in revising the standard and will take no action at this time.

### **7.2 SPC 87.2 In-situ Method of Testing propeller Fans for Reliability**

The formation of a SPC was discussed but David Carroll reminded the committee of the vote to reaffirm the standard at the February 7, 2005 meeting in Orlando, Florida. The SPC committee may not be required. John Murphy volunteered to contact Jim Woods, Standards Liaison, to ensure that ASHRAE recognized our reaffirmation.

After the meeting adjourned Jim Woods arrived to discuss SPC 87.2 with Joe Brooks, John Murphy, Paul Heitzmann, and David Carroll. Jim noted that the SRS will not allow SPC 87.2 to be re-affirmed and stated that it must be either revised or withdrawn. The group decided to form the SPC, recommend to ASHRAE not to send SPC 87.2 out for public review for withdrawal, and revise the standard. David Carroll will be the SPC Chairman and will be joined by John Murphy and Franco Cincotti on the committee. Two additional members are required for the committee. Please contact David Carroll if you are interested in joining the committee.

### **7.3 SPC 51-99/AMCA 210 Laboratory Method of Testing Fans For Aerodynamic Performance Rating**

The comments received in response to the canvass review process were resolved by the committee and the results were sent to the single member submitting a no vote. The member has one (1) month to review the resolution of the comments and to reconsider their vote. If the member changes the vote to acceptance, the standard will be reissued for another canvass and public review. Only the changes will be included in the review process. If no comments are received and the standard is approved it will be issued by the end of the summer 2007.

## **8. HANDBOOK – Brian Reynolds**

Walter Ziemann resigned the sub-committee chairmanship and was replaced by Brian Reynolds. Brian attended the Handbook Training Session. He also determined that the changes discussed by the committee for the 2008 version of the handbook were not submitted in time to be included in the draft copy. Two (2) months remain to submit changes to the final 2008 edition of the handbook. Brian and the committee decided to concentrate on the revisions to the 2012 handbook and CD.

## **9. RESEARCH – L. Z. Zeng**

### **9.1 Research Workshop**

LZ Zeng attended the workshop and noted the following:

- Received a copy of instructions entitled "How to Write Successful RTAR's and Work Statements"
- ASHRAE requested technical committees submit additional RTAR's. The ASHRAE research account balance is \$2.2 million.
- The likelihood of approval of RTAR's and Work Statements will increase if the documents are linked and referenced to the concept of sustainability.

### **9.2 RP 1126 Optimization of Sampling Tube for Induct Sound Testing**

Peter Baade reported the following:

- The sampling tube has been successfully tested up to 6000Hz
- The sampling tube is available to anyone for testing
- The research effort will likely be completed by the end of summer, 2007

Peter requested a one year no-cost extension to complete the project.

The committee is required to officially act on the request by notifying Fred Turner, ASHRAE Manager of Research & Technology, requesting ASHRAE acceptance. John Murphy volunteered to prepare a request and to send it to the committee members for approval. Upon approval by the committee John will forward the request to Mr. Turner.

### **9.3 WS 1216 Inlet Installation Effects, Air and Sound on Centrifugal Fans**

The revised work statement was submitted December 1, 2006, approximately 14 weeks after the required date of August 15, 2006. The RAC cancelled the project because the work statement was not received within the required time limit. LZ will contact Fred Turner to discuss if the RAC will accept the delayed submittal of the work statement.

Funds for the project will not be approved until the work statement is approved by RAC.

LZ made a motion to form a Proposal Evaluation Subcommittee for TRP 1216 at this time. John Murphy seconded the motion. Rad Ganesh will act as chairman of the PES. Zhiping Wang, Franco Cincotti, Brian Reynolds, and Brent Fullerton volunteered as committee members.

### **9.4 RP 1223 Installation Effects on Small Propeller Fans, Air and Sound**

The project is behind schedule. David Carroll made a motion to recommend that ASHRAE accept a no-cost extension of the project from December, 2006 to December 31, 2007. John Murphy seconded the motion. The motion was passed by a vote of 10 – 0.

Rad Ganesh commented that the data collected for the series of tests conducted on the first fan type looked good.

The results of the testing will provide enough data to prepare a seminar for presentation at the Long Beach meeting. Steve Idem volunteered to prepare abstracts for the seminar.

### **9.5 RP 1272 Inlet Installation Effects on Forward Curved centrifugal fans, Air and Sound**

A single bidder submitted a proposal for the project. The PES reviewed the proposal and evaluated the document based on the criteria contained in the Request for Proposal. The evaluation achieved a score above the minimum requirement for projects that receive only a single proposal. LZ made a motion to recommend to ASHRAE that the proposal be considered as a potential candidate to receive a contract to perform the research. John Murphy seconded the motion. The motion passed 9 – 0 with one voting member absence for the vote. Joe Brooks, member of AMCA International and a committee voting member, was absent for the discussion and the vote to avoid any perceived conflicts of interest.

### **9.6 WS 1420 Installation Effects on Plenum Fans**

RAC approved the revised RTAR. Rad Ganesh will begin preparing the work statement and will distribute the statement to the committee members and the TC Research Liaison prior to the Long Beach meeting. A vote on the statement will be scheduled for Long Beach.

Franco Cincotti, Brian Reynolds, and Chuck Coward agreed to review the work statement.

### **9.7 Suggested Research Topics**

Two future research projects under consideration are:

1. Research to improve the method currently included in AMCA 301 to convert tested fan sound data into accurate data for fans of different size and speed. At this time AMCA and Pennsylvania State University are preparing a work statement prior to beginning a research project to study the topic. The opportunity exists that AMCA and ASHRAE may be able to join together to fund the effort.
2. Research to develop criteria for improving the design of flow settling means utilized in multi-nozzle chamber performance testing defined in AMCA Standard 210. John Murphy and John Cermak volunteered to prepare a RTAR for review at the next meeting.

### **9.8 URP 1076 Propeller Fan Vibration Analysis**

The final report was submitted to the PMS and was accepted. John Murphy made a motion to terminate the research 1076 project. LZ Zeng seconded the motion. The motion was passed by a vote of 10 – 0. LZ Zeng will send a notification to the Manager of Research & Technology requesting that the project be terminated.

**10. PROGRAM – Aresh Raychaudhuri**

Seventy (70) people attended the TC 5.1 Seminar 31 “Method for Resolving Fan/Motor Vibration Problems”

**Long Beach Program**

Stephen Idem, PhD will prepare abstracts for a seminar entitled “Inlet Installation Effects on Small Propeller Fans, Air & Sound”. Three papers will be presented based on the data collected from the research project 1223.

The professor from Syracuse University (Dr. Dan) is preparing another seminar regarding CFD analysis. One additional speaker is required.

A seminar on Long Term Planning is being considered by John Cermak. Aresh will contact John to obtain additional details.

John Murphy made a motion to inform the TAC that it is counter productive to ASHRAE principles to change the complimentary registration fee policy for speakers. Rad Ganesh seconded the motion. The motion was passed by a vote of 10 – 0.

**10. LONG TERM PLANNING – John Cermak**

No report.

**11. FAQ**

No report. No questions have been forwarded from ASHRAE staff.

**12. WEBSITE REPORT – Brent Fullerton**

The TC 5.1 website is on-line and updated. The meeting minutes will be added to the website. Seminar presentations will also be added to the site provided the presenters give permission,

**13. MEMBERSHIP REPORT – Joe Brooks**

The following voting members will be removed from the voting roster as of July 1, 2007:

John Cermak

Charles W. Coward

Rad Ganesh

George Gamble

Walter Ziemann – Resigned

Anthony Radspieler – Unable to attend meetings

The following corresponding or new members will be added to the voting roster as of July 1, 2007:

Aresh Raychaudhuri

Tom Sobieski

Franco Cincotti

Brian Simonson

Any committee member interested in becoming the secretary, please advise Joe Brooks.

**14. OTHER BUSINESS**

Joe Brooks reported that TC 4.3 asked TC 2.6 if they were interested in co-sponsoring a research project to investigate noise levels of residential fans. TC 5.1 considered the report and demonstrated no interest in the project.

**15. TIME AND PLACE OF THE NEXT MEETING**

The next meeting of the committee is scheduled to be held in Long Beach, California on Monday, June 25<sup>th</sup>, 2007.

**16. ADJOURNMENT**

Rad Ganesh made a motion to adjourn the meeting at 6:15 PM. Brian Reynolds seconded the motion. The motion passed 10 to 0.

Minutes recorded by

George Gamble

Secretary, ASHRAE TC 5.1 FANS