

**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 5.1 DATE 3/8/10

TC/TG/TRG TITLE Fans

DATE OF MEETING 1/25/10 LOCATION Orlando, FL

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
George Gamble	2008	John Cermak	2008	Joe Brooks, Nathan Busse,
Mike Brendel	2007	Patrick Chinoda	2008	David Carroll, Curt Eichelberger
Franco Cincotti	2007			Jay Eldridge, Frank Forrest
Chuck Coward	2008			Brent Fullerton, Rad Ganesh
John Murphy	2009			Kevin Gebke, Larry Hopkins
Asesh Raychaudhuri	2007			Steve Idem, Michael Keating
Brian Reynolds	2009			Tim Kuski, Tim Mathson
Greg Sanchez	2007			Dustin Meredith, Kim Osborn
J. Thomas Sobieski	2007			Chris Papadimos, Laura Petrillo
Zhiping Wang	2008			Bob Smith, Greg Wagner, Steve Wise

DISTRIBUTION

All Members of TC/TG/TRG plus the following:

TAC Section Head:	Gus Mastro
TAC Chair:	Donald Brundage
All Committee Liaisons As Shown On TC/TG/TRG Rosters:	Danny Castellan (Research) Stanley Mumma (Special Publications) Bodh Subherwal (Standards) Cindy Callaway (Handbook) Papar Riyaz (Program)
Manager Of Standards Manager Of Research & Technical Services	Claire Ramspeck Mike Vaughn

**ASHRAE TC 5.1 Meeting
26 January 2010
Minutes**

1. Call to Order

Chair, George Gamble, called the meeting to order at 4:20 pm

2. Roll Call

The following voting members were present:

George Gamble, chair
Mike Brendel
Franco Cincotti
Chuck Coward
John Murphy – Standards, Vice Chair
Ashesh Raychaudhuri – Program Chair
Brian Reynolds – Handbook Chair
Greg Sanchez
J. Thomas Sobieski
Zhiping Wang

The following voting members were not present:

John Cermak, Long Range Planning Chair
Patrick Chinoda

A quorum was present.

The following corresponding members and guests were present:

Joe Brooks
Nathan Busse
David Carroll
Curt Eichelberger
Jay Eldridge
Frank Forrest
Brent Fullerton
Rad Ganesh
Kevin Gebke
Larry Hopkins
Steve Idem
Michael Keating
Tim Kuski
Tim Mathson
Dustin Meredith
Kim Osborn
Chris Papadimos

Laura Petrillo
Bob Smith
Greg Wagner
Steve Wise

3. Adoption of Agenda

Motion TC5.1 01-2010

Moved by: Franco Cincotti
Seconded: Aresh Raychaudhuri

"To adopt the agenda as presented."

Passed unanimously

4. Approval of the minutes

The minutes, as distributed were amended by adding attached material.

Motion TC5.1 02-2010

Moved by: Aresh Raychaudhuri
Seconded: Zhiping Wang

"Move to approve the agenda for the June Meeting of this TC with the aforementioned change."

Passed unanimously

5. Items of business

5.1 TC 5.0 Section Head Report

The section 5 section head, Gus Mastro, reported:

- encouraged TCs to keep website up to date,
- reminded committee that the new membership roster was due on Tuesday, and
- reminded committee chair to submit the activities feedback form.

5.2 TC 5.1 Liaison Reports

No liaisons were present.

5.3 Chairman's report

The chair summarized important items from the section head meeting:

- The 2009-2010 Hightower Award Recipient was Dharam V. Punwani of TC 1.10. Dharam is being honored for developing a new handbook chapter (Chapter 17) on Combustion Inlet Turbine Cooling.
- The ASHRAE Research Strategic Plan (five year plan) was posted on the ASHRAE Website for review. Comments are due 22 February 2010.

- Of 66 Conference paper abstracts that were approved for the Albuquerque meeting, only 50 were submitted. As a result, time allotted for technical sessions will need to be reduced.
- A Google Groups Board is being developed by the ASHRAE Electronic Communications Committee (CEC).
- Section 5 was asked by TC 5.8 Chairman Michael Baucom if there was any desire to add a "life safety" tract for future program tracts. This was discussed and Aresh, the Program Subcommittee Chairman, will talk with Mike.

6. Standards Subcommittee

The Standards Subcommittee chair, John Murphy reported on standards status. Highlights of his report follow.

6.1 **SPC 87.3, *Method of Testing Propeller Fans Vibration – Diagnostic Test Methods***

Reaffirmation of this standard (with an update to incorporate the latest references) was recommended at the last meeting of this TC.

6.2 **ASHRAE 68/AMCA 330, *Laboratory Method of testing to Determine the Sound Power in a Duct***

Joe Brooks reported that AMCA intends to initiate adoption procedures to identically adopt ISO 5136 for ASHRAE 68/AMCA 330.

7. Handbook

The Handbook Subcommittee chair, Brian Reynolds, reported on the status of the handbook revision. Two conference calls and one face to face meeting were held since the last meeting and progress was being made to complete the revision for the 2012 Handbook. Two conference calls are being planned prior to the June meeting. Greg Sanchez suggested adding a new area for stall and high temperature considerations.

8. Research

The Research Subcommittee chair, David Carroll, reported on the status of continuing research projects and proposed research. He noted that the ASHRAE Service to Research Award was given to John Murphy this year. It was also reported that the next due date for RTAR is 15 May 2010. Research Project highlights were provided

8.1 **RP 1126 Optimization of Sampling Tube for Induct Sound Testing.**

This project has not progressed since the last meeting.

8.2 **RP 1216 Inlet Installation Effects on BI/Airfoil Centrifugal Fans, Air & Sound**

A draft of the research report was reviewed at a PMS meeting held earlier in the day and five items were identified that needed rework. It was noted that the testing was completed satisfactorily but the analysis fell short.

8.3 RP 1272, Inlet Installation Effects on Forward Curved Centrifugal Fans, Air and Sound

Motion TC5.1 03-2010

Moved by: Zhiping Wang
Seconded: David Carroll

“Move to approve the RP 1272 final report .”

Approved unanimously
Vote: 9-0-0

A discussion on presentation of the final report at an ASHRAE meeting was discussed, including the role of conference papers.

- Greg Sanchez volunteered to draft a letter for the committee to the ASHRAE Program Committee

8.4 TRP 1420 – Installation Effects on Plenum Fans

After the last meeting of the PES, additional information was received and a PES recommendation of a bidder to be awarded the research contract was made and approved by the TC via letter ballot. The recommendation will be sent to MORTS. There was one qualified bidder.

8.5 Suggested Research Topics

The following possibilities were discussed:

8.5.1 Proposed RTAR to compile data from all five Inlet Installation Effects Research Projects by Brian Reynolds. David Carroll will get input from the ASHRAE Research Liaison, send to the committee for review, then send out for letter ballot approval. It was noted that if this was completed by 15 May 2010, it would make it to the RAC agenda. It will also be sent to Curt Eichelberger for TC 2.6 review.

8.5.2 It was noted that an Unsolicited Research Project on the subject of Fan Noise Scaling and Statistics was received from Penn State University and will be on the RAC agenda in June.

8.5.3 Some type of RTAR for stall was suggested. It was thought that the substance might be, “How close can the fan’s operating point be near stall?”

- Bob Smith and Chuck Coward volunteered to discuss the possibilities of writing an RTAR for Review.

8.5.4 Fans in parallel and series

- Patrick Chinoda and David Carroll will work out an RTAR for committee review.

8.5.5 A Research Project to develop a Method of Test for large circulating fans.

- Christian Tabor and Asesh will collaborate on sponsoring a forum.

8.5.6 Air Curtain Effectiveness Test Method Development was discussed previously.

9. Programs

The program chair reported on TC 5.1 program sponsored at this meeting and plans for future meetings. Highlights were:

- Forum 7, Multiple Plenum Fans in an Array: What Are the Advantages and Disadvantages?, of this meeting was well attended, Asesh suggested a follow-up seminar
- Chirs Papidimos (TC 2.6) and Plenum Fan Wall Seminar, co-sponsor for seminar for Las Vegas meeting.
- Reminded attendees of Seminar 74 being held on Wednesday
- For Albuquerque, a forum on vibration (Mike Brendel) and Large Circulating Fan Performance was suggested.
- For Las Vegas:
 - Greg Sanchez suggested a seminar on current design practices for fans. He will give an abstract to Asesh
 - A seminar on High Temperature Requirements for fans (who, codes, standards, testing, etc.)
 - RP 1272 paper (Transaction of Conference Paper)
 - RP 1216 may be ready for a Transaction or Conference Paper

10. Long Term Planning

Nothing was reported.

11. FAQ

This committee had no FAQs.

12. Website Report

It was reported that the TC5.1 website was up to date. After a short discussion, the committee thought that they would like to see the minutes on line. The committee secretary was asked to send the minutes to Brent Fullerton after they are approved by the chair.

13. ASHRAE Research Advisory Panel

Joe Brooks reported that comments were due by 22 February 2010 on the Research Strategic Plan.

14. Other Business

New members, effective after the Annual Meeting will be:

Jenny Abney of PennBarry
Manoj Khatri of Kruger India
Laura Petrillo of AHRI

In addition, the following will become voting members after the Annual meeting:

Joe Brooks
Kim Osborn
Tim Mathson
Brent Fullerton

It was also reported that Joe Brooks had volunteered to be the Secretary and that Greg Sanchez would be the next Vice Chair.

15. Time and Place of Next Meeting

The next meeting of this TC will be at the 2010 ASHRAE Annual Meeting in Albuquerque, New Mexico, June 26th to 30th.

16. Adjournment

Motion TC 5.1 04-2010

Moved by: Greg Sanchez
Seconded: Tom Sobieski

“Move to adjourn.”

Passed unanimously

The meeting adjourned at 6:20 pm.

Minutes recorded by,
Joe Brooks

Attachment: Approved change to Summer 2009 minutes of TC 5.1, change to read:

9.3 *WS 1216 Inlet Installation Effects, Air and Sound on Centrifugal Fans – The PMS and PI met at this meeting and testing is well underway. As of this date, the PMS has seen no data.*

My notes include the following:

6/22/09 (PMS mtg, John M., Franco C., Kim O.): initial review of draft final report that was submitted on 6/11/09, John to e-mail Rad with some issues that were discussed including:

- How are the aerodynamic system effects actually calculated?
- Question the use of splines to represent data.
- Cleanup the legends
- Was data reduction compromised by use of splines?
- Possibly eliminate the system effect calc's left of the peak
- Raw data for airflow and sound?

6/22/09 (TC5.1 mtg): same as PMS meeting.

9.4 *RP 1223 Installation Effects on Small Propeller Fans, Air and Sound – A motion to approve the final report was made by the PMS chair and seconded by John Cermak. Motion carried 9,0,0.*

My notes include the following:

6/22/09 (S/C Chair brkfst, Mike Vaughn): Transaction 15 is on 6/23, need to submit Disposition of ASHRAE Sponsored Research Results

6/23/09 (TC5.1 mtg): same as 6/22.

6/23/09 (11:00-12:30, G, S3, Beckham): Transactions 15 - Inlet Installation Effects on Air and Sound for Propeller Fans.