

**ASHRAE TC 5.1 FANS
MEETING MINUTES
Monday, June 27, 2005**

Adam's Mark Hotel

Denver, Colorado

1. CALL TO ORDER

Chairman Brian Reynolds called the meeting to order at 4:30 P.M.

2. ROLL CALL

Members

- | | |
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| <input checked="" type="checkbox"/> Brian Reynolds -Chairman | <input checked="" type="checkbox"/> George Gamble - Secretary |
| <input checked="" type="checkbox"/> Aresh Raychaudhuri - Programs | <input checked="" type="checkbox"/> Rad Ganesh |
| <input checked="" type="checkbox"/> John Cermak – Long Range Planning | <input checked="" type="checkbox"/> Gary Kile |
| <input checked="" type="checkbox"/> Charles W. Coward | <input type="checkbox"/> Anthony Radspieler |
| <input checked="" type="checkbox"/> Brent Fullerton | <input checked="" type="checkbox"/> Walter Ziemann - Handbook |
| <input type="checkbox"/> Joe Brooks – Vice Chairman | <input type="checkbox"/> Tim Mathson |
| <input checked="" type="checkbox"/> David Carroll | |

Corresponding Members & Guests

Paul Heitzmann	Neil Moiseev	Karl Peterman
Franco Cincotti	Steve Wise	Joe Koning
Zhiping Wang	Jim Schick	Jon Weinstein
Patrick Chinoda– Website	Mike Brendel	Nathan Clute
Tom Sobieski	John Murphy - Standards	Tom Paige
L.Z. Zeng - Research	Kim Osborn	Bradley Meister
Mark Fly	Brian Guenther	Dustin Meredith
Steve Hancock	Robert Smith	Xinlei Wang

3. ADOPTION OF AGENDA

The agenda was adopted by consensus.

4. APPROVAL OF MINUTES

The minutes of the meeting held on Monday, February 7, 2005 in Orlando, Florida were approved as written.

5. ITEMS OF BUSINESS

TC 5.1 LIAISON REPORTS

ASHRAE liaisons were not represented at the meeting. No reports were presented.

Mark Fly informed the committee that the ASHRAE Fundamentals Handbook has been rewritten in a condensed version. ASHRAE Publications section may request members of TC 5.1 to perform a peer review of the condensed version.

CHAIRMAN REPORT - Brian Reynolds

The TC 5.0 Section Head, Dan Int-Hout, has been replaced by Gaylan Richardson.

ASHRAE is considering the following changes to the meeting program:

- Reduce the time allowed for seminars from 2 hours to 1.5 hours
- Eliminate Wednesday program events

6. STANDARDS SUBCOMMITTEE – John Murphy

6.1 SPC 87.1 Method of Testing Fan Vibration and Critical Speeds

Paul Heitzmann, committee chairman, again requested volunteers join the committee. David Carroll agreed to become a member.

Peter Baade has agreed to write an update to the standard.

6.2 SPC 51-99/AMCA 210 Laboratory Method Of Testing Fans For Aerodynamic Performance Rating

John Cermak noted that the draft of the revised standard is complete. The draft will be distributed to the committee in July to review and vote to accept or reject the draft revisions.

6.3 SPC 68-86R Laboratory Method Of Testing To Determine The Sound Power In A Duct

John Hogan, ASHRAE Standards Committee Chairman, joined TC 5.1 during the discussion of SPC 68-86R.

The TC 2.6 committee voted to give up ownership of the standard at the Orlando meeting, it did not vote to withdraw the standard. ASHRAE headquarters has not reassigned the standard to any other technical committee (TC).

Gary Kile made a motion that TC 5.1 become the cognizant committee for SPC 68-86R. Alesh Raychaudhuri seconded the motion. The motion passed by a vote of 9 to 1.

John Cermak made a motion to withdraw the standard SPC 68-86R. Walt Ziemann seconded the motion. The motion passed 9 to 1.

7. HANDBOOK – Walter Ziemann

7.1 / 7.2 The College of Fellows critique of the handbook chapter did not express specific or exacting issues. Their comments noted that the chapter discussion on noise and Variable Frequency Drives were weak and sketchy in nature. The handbook chairman, Walt Ziemann, requested assistance from any committee member willing to provide ideas or technical information that would provide more detail and clarity to these two topics. John Murphy and Chuck Coward volunteered to assist Walt rewriting these two sections.

7.3 The revision of the chapter must be completed by May, 2006. The committee must vote on the revised version of the chapter at the Chicago meeting in January, 2006.

7.4 Members on the review committee are: Charles Coward, John Murphy, and Anthony Radspieler.

8. RESEARCH – L. Z. Zeng

8.1 URP 1126 Optimization of Sampling Tube for Induct Sound Testing

Peter Baade has committed to complete his report by December 31, 2005.

8.2 URP 1076 Propeller Fan Vibration Analysis

The final report is complete and has been accepted. The project will be removed from the committee discussion agenda.

A paper must be prepared for presentation.

8.4 TRP 1216 Inlet Installation Effects, Air and Sound on Centrifugal Fans

The Program Monitoring Sub-Committee (PMS) reviewed the only bid received and determined that the bidder did not sufficiently comply with the Request for Quotation (RFQ). John Murphy will re-write the RFQ specifications by November 2005 for the committee to review at the Chicago meeting. The funding for the project will still be available after December 15, 2005.

8.4 RP 1223 Installation Effects on Small Propeller Fans, Air and Sound

The PMS was reduced to three members after Eric Cole resigned from the committee. David Carroll volunteered to replace Eric.

John Cermak made a motion to appoint David Carroll Chairman of the PMS. Rad Ganesh seconded the motion. The motion passed 10 to 0.

Kim Osborn, TC 2.6 member, also volunteered to become a member of the PMS.

Tennessee Technological University (TTU) began work on the research project March 15, 2005. The first progress and financial report, including activities from March 15 to May 31, 2005, was presented to the PMS by Dr. Steve Idem at a meeting on Monday June 27th at the Adam's Mark Hotel in Denver. A copy of the meeting minutes has been distributed under separate cover by the committee chairman.

The project status includes:

- The sound equipment is being calibrated
- The ductwork has been tendered for bid
- The three fans have not yet been procured. TTU has requested fan suppliers to consider donating equipment for use in the research project.
- Testing is scheduled to begin in the fall of 2005. Dr. Idem will provide the PMS a detailed schedule in one (1) week.

A member of the PMS will visit the research site just prior to the start of testing to review the equipment set-up and procedures and provide an approval to begin testing.

8.4 WS 1272 Work Statement On FC Centrifugal Fans, Air & Sound Installation Effects

The project Research Topic Acceptance Request (RTAR) has been approved but the work statement was never approved. A new work statement must be prepared and approved by August 15, 2005 or the project will be removed from the approved list of projects. Zhiping Wang volunteered to prepare the statement by mid July and route the statement by email to the committee for review and vote by the August deadline.

It was noted that members receiving an email request for a vote should respond. Not responding will be counted as an abstention. ASHRAE views an abstention as a near equivalent of a no vote.

Zhiping Wang will be the Program Evaluation Sub-Committee (PES) Chairman. Volunteers are needed to become members of the committee. Please contact Zhiping.

8.5 Proposed Research Projects – Installation Effects on Plenum Fans

The modified RTAR prepared by Rad Ganesh was presented to the committee for review and approval. Aresh Raychaudhuri made a motion to approve and accept the RTAR. Brent Fullerton seconded the motion. The motion passed 10 to 0.

The project will be in the research category "Equipment Component & Materials"

9.0 PROGRAM - Aresh Raychaudhuri

A seminar is planned for the Chicago meeting. The seminar will be the second seminar conducted to discuss the "Fan Assessment Tool" computer program developed by the Department of Energy. The first seminar was presented at the Anaheim meeting prior to the program completion and release to the public. The program has been completed and released to the public. Anthony Radspieler will be the main speaker and will discuss details of the program. Joe Brooks will also speak.

A forum to discuss possible improvements to fan operating system efficiencies and energy saving will also be included in the Chicago program. Walt Ziemann volunteered to be the forum moderator.

Suggestions for the June 2006 Quebec City meeting program were discussed. A professor of engineering at the University of Syracuse has expressed interest in working with the committee developing a seminar for the meeting. Aresh will follow-up.

In addition, the final paper prepared for URP 1076 Propeller Fan Vibration Analysis would provide a topic for a seminar or symposium. Paul Heitzmann will contact UNLV to determine the status of the effort to prepare the paper.

10. LONG TERM PLANNING – John Cermak

The following long term planning topics are still under consideration:

- Experimental research of fan sound characteristics through a wide range of impeller speeds. The objective of the research would be to establish a new method of evaluation of sound generated by a fan to replace the current AMCA Standard 301 method.
- Establish methods to achieve an interactive handbook chapter
- Experimental research evaluating the requirements of the settling means utilized for SPC 51-99/AMCA 210-99 Laboratory Method Of Testing Fans For Aerodynamic Performance Rating

- Evaluation of the AMCA 300 sound uncertainties
- Plenum fan test standard

John Cermak suggested that the committee discuss the long term planning topics listed above during the Sunday TC 5.1 Sub-committee meeting. An approximate time of one (1) hour should be sufficient. He also encouraged TC 2.6 members to attend the discussion.

Brian Reynolds will include time during the sub-committee meeting to discuss the topics.

11. WEBSITE REPORT - Patrick Chinoda

The TC 5.1 website is up and running. John Murphy has agreed to be the TC 5.1 contact person to answer questions regarding the committee activities proposed by non-committee members. The website will include information for non-committee members to contact John.

The committee meeting minutes will be added to the website.

Patrick requested sub-committee chairman to provide information regarding their ASHRAE activities for posting on the website.

The website address is www.tc51.ashraetcs.org

12. MEMBERSHIP REPORT - Brian Reynolds

Rollover of the committee membership will take place July 1, 2005. There are no members that will roll off the committee. John Murphy and L.Z. Zeng will be added to the roster as voting members and should be included in any email vote mailing.

The committee has fifteen members. The maximum membership of the committee is sixteen.

13. OTHER BUSINESS

No new business was discussed.

14. TIME AND PLACE OF THE NEXT MEETING

The next meeting of the committee is scheduled to be held in Chicago on Monday, January 16, 2006.

15. ADJOURNMENT

Asesh Raychaudhuri made a motion to adjourn the meeting at 5:55 PM. David Carroll seconded the motion. The motion passed 10 to 0.

Minutes recorded by
George Gamble
Secretary, ASHRAE TC 5.1 FANS