1. **CALL TO ORDER**

Chairman Brian Reynolds called the meeting to order at 4:35 P.M.

2. **ROLL CALL**

   **Members**
   - Brian Reynolds -Chairman
   - L.Z. Zeng – Research
   - John Cermak – Long Range Planning
   - Charles W. Coward
   - Brent Fullerton
   - Joe Brooks – Vice Chairman
   - David Carroll
   - George Gamble - Secretary
   - Rad Ganesh
   - Gary Kile
   - Anthony Radspieler
   - Walter Ziemann - Handbook
   - Tim Mathson
   - John Murphy

   **Corresponding Members & Guests**
   - Paul Heitzmann
   - Franco Cincotti
   - Zhiping Wang
   - Mike Brendel
   - Tom Sobieski
   - Kim Osborn
   - Mark Fly
   - Xinlei Wang
   - Asesh Raychaudhuri – Programs

3. **ADOPTION OF AGENDA**

The agenda was adopted by consensus.

4. **APPROVAL OF MINUTES**

John Cermak made a motion to approve the minutes of the meeting held on Monday, June 27, 2005 in Denver, Colorado. John Murphy seconded the motion. The minutes were approved by a vote of 13 to 0.

5. **ITEMS OF BUSINESS**

**TC 5.0 SECTION HEAD REPORT**

The Section Head, Gaylon Richardson, was not present at the beginning of the meeting. Gaylon stopped in later to check with the Chair to see if we needed anything. No report was presented.

**TC 5.1 LIAISON REPORTS**

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

**CHAIRMAN REPORT - Brian Reynolds**

- ASHRAE headquarters reminded all members to update their biographies. The update can be done on the ASHRAE website. An appeal was also made to all technical committees to keep their web sites up to date.
- The ASHRAE George B. Hightower Award was presented to George Briley, member of TC 10.1
- Program technical sessions have been reduced in length from two (2) hours to one and one-half (1 ½) hours. The number of speakers will be limited to three (3). The objective of the change is to increase the number of seminars, forums, and symposiums included in the program schedule.
- ASHRAE also stressed the desire for each technical committee to strive to eliminate all paper associated with the meetings. Agendas, minutes, and other correspondence should be transmitted by electronic methods.
The use of a wireless router with local area FTP site was introduced for the first time at this meeting. Chuck Coward and Brian Reynolds met with Bruce Bilideaux from the Electronics Communication committee prior to the TC 5.1 meeting to learn how to use the wireless router for sharing documents with meeting attendees. Chuck and Brian provided instructions for how to login into the server and from there how to download copies of any shared documents (the updated meeting agenda). A laptop computer with a wireless card is all that is needed in order to participate. It is hoped that this technology will increase meeting efficiency and productivity.

6. STANDARDS SUBCOMMITTEE – John Murphy

6.1 SPC 87.1 Method of Testing Fan Vibration and Critical Speeds
John Cermak made a motion to re-affirm SPC 87.1 and retain it as written without revision. Walter Ziemann seconded the motion. The motion was passed by a vote of 12 – 0. The committee Chairman, Brian Reynolds, did not vote.

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 and has been distributed for review.

6.3 SPC 68-86R Laboratory Method Of Testing To Determine The Sound Power In A Duct
It was noted that at the Denver meeting a motion was made that TC 5.1 become the cognizant committee for SPC 68-86R. In addition, another motion was made to withdraw the standard. Both motions were passed by the committee.

At this time it is not known if ASHRAE has approved the withdrawal of the standard.

7. HANDBOOK – Walter Ziemann

7.1 Handbook Workshop
Walter Ziemann received a list of reviewers’ comments from Flabio Clavijo regarding the handbook chapter. The list was presented and discussed by the committee. None of the comments were considered for inclusion in the next chapter revision. The comments will be referred to ALI for possible inclusion in a future educational program.

7.2 Handbook Review Input
In response to the College of Fellows critique, the chapter will be revised by including references to chapters in the handbook that address the issues raised in the critique. At this time it is planned to revise the chapter to include technical information regarding variable frequency drives. The information will be prepared by John Murphy and submitted to Walter by March 31st. If the information is delayed beyond March 31st the handbook revision will be submitted without the VFD information.

7.3 Handbook Schedule
The revisions to the handbook must be submitted to ASHRAE by April 6th, 2006.

8. RESEARCH – L. Z. Zeng

8.1 URP 1126 Optimization of Sampling Tube for Induct Sound Testing
No update on the status of the report by Peter Baade is available.
John Cermak made a motion to recommend ASHRAE close the project. The motion was seconded by L. Z. Zeng. The motion was passed by a vote of 12 – 0. The committee Chairman, Brian Reynolds, did not vote.

8.2 TRP 1216 Inlet Installation Effects, Air and Sound on Centrifugal Fans
The scope of the project will be reduced to be in line with the project budget. Zhiping Wang and Rad Ganesh will rewrite the work statement for review by the next committee meeting in June. Submittal of the revised work statement is scheduled for the fall of 2006.

8.3 RP 1223 Installation Effects on Small Propeller Fans, Air and Sound
The project is behind schedule. David Carroll made a motion to accept a no-cost extension of the
project from March, 2006 to December, 2006. John Cermak seconded the motion. The motion was
passed by a vote of 12 – 0. The committee Chairman, Brian Reynolds, did not vote.
Members of the committee plan to visit the site to review preliminary test data in March. The testing
is scheduled to be complete by the end of the summer.

8.4 WS 1272 Work Statement On FC Centrifugal Fans, Air & Sound Installation Effects
The work statement was conditionally accepted but minor revisions must be made to the document.
The revised statement will be completed by Zhiping Wang by February 17th. The project is scheduled
to be advertised for bid in the spring of 2007.

8.5 Proposed Research Projects – Installation Effects on Plenum Fans
The RTAR was reviewed by the research committee. The committee recommended that the RTAR
be revised to reflect the requirements outlined in the Strategic Research Plan. The RTAR will be
resubmitted in time for the research committee spring meeting.

John Cermak prepared comments regarding two future research projects. The projects are:
   1. Research to develop criteria for improving the design of flow settling means utilized in multi-
      nozzle chamber performance testing defined in AMCA Standard 210.
   2. 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.

9.0 PROGRAM - Asesh Raychaudhuri
9.1 Chicago program
The forum moderated by Walt Ziemann regarding methods to improve fan efficiency was attended
by 50 to 60 people. Several topics discussed at the forum will be considered for inclusion into the
handbook chapter.

The seminar planned for Chicago, discussion of the Department of Energy (DOE) “Fan Assessment
Tool” computer program, was cancelled. DOE has restricted travel by employees until further notice.
Planning for the seminar should be discontinued.

9.2 Quebec City Program
A seminar entitled “Advances in Fan Analysis and Design Methods” has been prepared by a
professor of engineering at the University of Syracuse. Three speakers are scheduled to present
topics at the seminar.

The final paper prepared for URP 1076 Propeller Fan Vibration Analysis will not be ready for the
Dallas, Texas meeting in January, 2007.

Rad Ganesh will moderate a forum or seminar, co-sponsored by TC 5.9, entitled “Fan Application
Fundamentals”.

9.3 Dallas Program
John Cermak suggested the committee sponsor a seminar regarding new issues or concepts to
include in the next version of AMCA 210. John has several ideas and will rank them in order of
importance for discussion at the next meeting.

10. LONG TERM PLANNING – John Cermak
John stressed the importance of preparing the handbook chapter to include inter-active computer
programs to allow users to simulate fan systems. The programs should be designed as a tool to
demonstrate fan operation and the effects of different system designs.

11. WEBSITE REPORT - Patrick Chinoda
Chuck Coward provided an interim report. The website is up and running but has not been updated
for several years. Chuck requested members to provide comments that he will include on the site.
John Murphy suggested that any “Frequently Asked Questions” and answers be included on the site,
if possible.
Chuck also suggested that the committee sponsored research and technical papers be posted on the site.

12. MEMBERSHIP REPORT - Brian Reynolds
   Rollover of members will occur after July 1st, 2006. New members should contact ASHRAE staff or the TC chairman and have up-to-date biographical information.
   • Eric Cole has left the industry and will be removed from the roster.
   • Anthony Radspieler will not be able to attend future meetings and will be removed from the roster.
   • Joe Brooks will become Chairman after the Quebec City meeting.
   • George Gamble will become Vice-Chairman after the Quebec City meeting.

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 Quebec City, Canada on Monday, June 26th, 2006.

15. ADJOURNMENT
   John Cermak made a motion to adjourn the meeting at 5:55 PM. David Carroll seconded the motion. The motion passed 12 to 0.

Minutes recorded by
George Gamble
Secretary, ASHRAE TC 5.1 FANS