

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

TC/TG/MTG/TRG MINUTES COVER SHEET

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

TC/TG/MTG/TRG No. TC 5.1 DATE 24Jun2013

TC/TG/MTG/TRG TITLE Fans

DATE OF MEETING 24 Jun 2013 LOCATION Denver, CO

MEMBERS PRESENT	YEAR APPTD	MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD
Greg Sanchez	2012	Franco Cincotti	2012	Rad Ganesh	2011
Joe Brooks	2010	Tim Mathson	2010		
Brian Reynolds	2013	Kim Osborn	2010		
Asesh Raychaudhuri	2012	David Rasmussen	2012		
John Murphy	2012	Greg Wagner	2012		
Brent Fullerton	2010				
Mike Brendel	2012				

DISTRIBUTION

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

TAC Section Head:	Mr. Kenneth C Peet
TAC Chair:	Mr. Walter Grondzik
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters:	Mr. Rick A Larson Mr. James A. Arnold, PE Mrs. Annette Dwyer Dr. Piotr A Domanski
Manager Of Standards Manager Of Research & Technical Services	Stephanie Reiniche Mike Vaughn

**ASHRAE TC 5.1 Meeting
Monday, 24 Jun 2013**

Denver Sheraton, Denver, CO

Plaza Court 3

Minutes

1. Call to Order

The meeting was called to order by the chair, Greg Sanchez at 4:15 pm.

2. Roll Call

Voting member of this committee:

- Greg Sanchez -- Chair
- Joe Brooks -- Secretary
- Brian Reynolds – Research S/C Chair
- Ashesh Raychaudhuri – Program S/C Chair
- John Murphy – Standards S/C Chair
- Brent Fullerton, Webmaster
- Mike Brendel
- Franco Cincotti
- Tim Mathson
- Kim Osborn
- David Rasmussen
- Greg Wagner

Rad Ganesh was unable to attend. A quorum of voting members was present. Names of corresponding members and guests that were attending the meeting are attached

3. Adoption of Agenda

Motion TC 5.1-5-2013

Moved by : John Cermak
Seconded: Tim Mathson

“Move to adopt the Agenda.”

Passed unanimously

4. Approval of the minutes

Motion TC 5.1-6-2013

Moved by : John Murphy
Seconded: Greg Wagner

“Move to approve the minutes of the last meeting of this TC held on 28 January 2013 as transmitted.”

Passed unanimously

The last meeting of this TC was 28 Jan 2013.

5. Items of business

5.1 TC 5.0 Section Head/Liaison Reports

The Section 5 Section head reported. He asked all TC members to check their ASHRAE bio to ensure that the proper employment and discipline categories are selected. He also reminded the TC that any questions that the committee may have should be added to the section feedback form submitted by the chair.

5.2 Chairman's report

The chair reported on information provided at the chair's section meeting. He noted that this conference and future conferences will have "special sessions" and that more "forums" were encouraged.

5.3 Old business

5.3.1 Review of action items from last minutes

Any action items from past meetings were reported on in their respective subcommittee reports.

5.3.2 Multi Disciplinary Group – Energy-Efficient Air-Handling Systems for non-Residential Buildings (MTG-EAS)

John Murphy, TC 5.1's liaison to this MTG referred to Craig Wray, the Vice Chair of the MTG, to report on the committee activity. The MTG will be trying to flush out ideas using a use case template. Currently, most ideas for the MTG are only brief descriptions. Larry Smith of the committee hopes to get more input. The TC was reminded that the MTG does no work itself, its purpose is to coordinate the work from various other committees and groups. It was reported that a duct selection design guide, developed by TC 5.2 could benefit from a review by this TC.

□ All – Review and comment on the TC 5.2 draft Duct Design Guide and send comments to John Murphy at joqram@bright.net

The duct design guide can be accessed via this link: <http://files.unitedmcgill.com/6d48ff3195>

The File Share location is protected, so you will need to use user name "ASHRAE" and password "MEMBERS" (without the quotes) to access it. Please note that the subject of chapter 10 of this draft is Fan Selection.

6. Subcommittee reports

6.1 Standards subcommittee – John Murphy

6.1.1 ASHRAE Standard 149

The subcommittee chair reported that this standard is in force.

6.1.2 ASHRAE 68/AMCA 330

Tim Mathson, chair of this joint standard review committee, reported that AMCA International is adding ISO 5136 to its list of acceptable standards for

certification. When complete action will be taken from AMCA International to withdraw this standard.

6.1.3 ASHRAE 51/AMCA 210

Tim Mathson, chair of this joint standard review committee, reported that the committee met this past Sunday and that the committee is making good progress toward the revision. The main effort is allowing the measurement of electrical input to motor or drive be added to standard.

6.1.4 ASHRAE 87.2

This standard was withdrawn.

6.2 Handbook subcommittee

The chair, Zhiping Wang, reported on the activities of this subcommittee. Report is attached.

- Zhiping will contact Annette Dwyer for more information on the one free subscription for the on Handbook.

6.3 Research subcommittee

The chair, Brian Reynolds, reported on the activities of this subcommittee. Report is attached.

6.4. Program subcommittee

The chair, Asesh Raychaudhuri, reported on the TC's conference technical programs. Mike Brendel, John Cermak and possibly Craig Wray discussed putting together a seminar on Fan-System Integration for the New York Conference.

- Mike Brendel volunteered to send an abstract to Asesh.

Other possible seminars topics included:

- Methods to Determine Fan Efficiency – Tim Mathson
- Fan Selection and Efficiency – Tim Mathson
- Pressure and Fan Selection – Craig Wray
- Size and Selection

Asesh is also looking for programs for the Seattle meeting next summer. He asked that if anyone had ideas to please send them to him.

7. FAQ

John Murphy reported that there were no new FAQ's.

8. Website Report

Brent Fullerton reported that the Web is current and up-to-date. The question was asked if any statistics on the web use were available.

- Brent to talk with Jocelyn about getting web statistics.

9. New Business

The chair challenged the TC members to develop research projects to service the manufacturing needs, since the TC participation is over 50% manufacturers.

John Murphy addressed the TC thinking that it was ridiculous that only one high risk research project per year was selected since, by definition, all research projects should carry some risk.

10. Time and Place of Next Meeting

The next meeting will be held in conjunction with the Winter meeting in New York City at the same time and place.

11. Adjournment – 6:15 pm

Minutes recorded by:

Joseph Brooks

Attachments: 1.) Roll Call
2.) Handbook Subcommittee Report
3.) Research Subcommittee Report

Roll Call

(non-voting members of TC 5.1 in attendance)

Michael Keating
Jane Miller
Chuck Coward
Zhiping Wang
Michael Ivanovich
Harold Dubensky
Laura Petrillo-Groh
Igor Malvski
Patrick Chinoda
Jay Eldridge
John Cermak
Sam Jasinski
Tim Kuski
Andy Bosscher
Dannielle Fox
Armin Hauer
Craig Wray
Larry Smith
Steve Item
Dustin Meredith
Herman Behls
Mike Wolf
Rick Larson

1.

TC 5.1 Handbook Subcommittee Notes (Denver, 06/24/2013)

Zhiping Wang

- TC 5.1 Handbook Subcommittee met yesterday afternoon and we discussed a few new ideas/new sections that we can put into our fan chapter for the current revision cycle. Right now, we are still looking for comments, ideas regarding what we would like to do with our chapter. **A summary sheet will be put together by the chair and circulate afterwards.**
- Current TC 5.1 Handbook Subcommittee Membership:
Zhiping Wang - Chair
Joe Brooks Armin Hauer Patrick Chinoda
Franco Cincotti John Murphy Craig Wray
Michael Feuser David Rasmussen Mike Brendel Danielle Fox
- According to ASHRAE staff, for the Handbook 2016 volume, the final and TC- approved chapters are due by May 30, 2015. We have about two years to get the job done.
- ASHRAE Handbook Online+ - an upgraded version of ASHRAE Handbook Online with extra features, such as spreadsheets, videos, checklists, etc. **We are constantly soliciting ideas/thoughts to develop the Online+ features for our chapter.** Note: TC-approved features can be submitted at any time throughout the year.
- Complimentary one-year subscription to ASHRAE handbook online available for each handbook chapter. Contact our handbook liaison - Annette Dwyer for clarification.
- Handbook Comments Database – No comments received so far regarding our chapter.
- Next face-to-face subcommittee meeting: New York, Jan 2014. One hour meeting time and room for the handbook subcommittee will be scheduled and requested. Also, web-based subcommittee meetings will be scheduled as needed.

TC 5.1 Research Sub-Committee Report
Brian Reynolds, Chair
June 24, 2013
Denver

Research Subcommittee Chairs Breakfast meeting (notes) 6:30 AM

- There are 58 active RP's.
- RAC is composed of the 10 section liaisons + 4 others
- In Denver RAC evaluated 5 RTARS's (2 accepted, 2 returned, 1 rejected)
- RAC also evaluated 2 WS's (1 conditional accept, 1 returned)
- If we don't receive more project ideas during 2013/14 we may run out of projects to bid.
- Innovative Research Grants (received 18 proposals, RAC made 1 recommendation) \$125K
- Presented information on the process for evaluation/contractor selection
 - No bidder can be on the PES
 - A bidder can be an RTAR author
 - Section 5 TC's are good sources for potential bidders (air movement related)
- Presented new RTAR template (pdf with formatted entry section, words limit in each section)
 - Has not gone live yet
 - Mike Vaughn will provide a filled in example
 - RTAR's already in process can stay with the current format.

TC 5.1 Research Subcommittee Meeting Notes (from June 23, 2013)

1. RP 1420 - Plenum fan inlet and discharge system effect (Franco Cincotti, PMS Chair)
 - Status report 2 report from the PI presented by Mark Stevens & reviewed by the PMS
 - PMS suggestions include:
 - Add AMCA tolerance to system effect charts.
 - add CFM-SP and CFM-HP charts
 - add one-third octave charts (in lieu of dBA charts)
 - Additional tests with return fan inlet cabinet side wall at lower %WO
 - Project is tracking for September 2013 completion
2. RP 1216 – AF fan inlet system effects (Rad Ganesh, PMS Chair)
 - All requirements have been met. Technical paper has been submitted (did not receive any comments). (Staff did not receive the submittal. Problem with manuscript central.)
 - Asesh will confirm status & schedule for possible seminar or technical paper presentation in Seattle.
 - Consider holding off and combining with 1420 report?

RTAR's in progress

1. Inlet Installation Effects on Fans (Air and Sound) – Summary of Previous Research Projects (Brian Reynolds)
 - Received significant revision suggestions from liaison

- An ISO WG is working on a similar project including using the results of the ASHRAE RP's as well as other research from Europe labs. (They may not be addressing sound?). Alain Guedel is lead.
- 2. System effect factors for multiple fans operating in parallel for both air and sound performance (Patrick Chinoda author)
 - Updated RTAR sent to liaison for review.
 - Then goes to RAC hopefully for consideration at New York.

Reviewed list of possible research topics

- John Murphy and/or John Cermak to write RTAR to develop practical process to determine velocity pressure (& outlet velocity profile). Evaluate computer codes accuracy. Validate a model approach. Accurately determine the energy flux leaving the fan.
 - Could improve how fans are designed or applied.
- Reviewed about 7 other ideas from the list, no direction set at this time.

Other Fan research ideas? Or send ideas to TC 5.1 Research Chair (Brian Reynolds)

- Improving fan sizing & selection practice.
- Address DOE rulings & questions.
- Efficiency of motor/VFD & part load. (MTG)