Main Meeting Minutes
ASHRAE Technical Committee 5.3
Room Air Distribution
Las Vegas, NV
February 1, 2011

1. Call to Order (Gus Faris) called to order at 1PM

2. Introductions / Attendance Sheet / Verify Quorum (Gus Faris)

   15 voting present of 18 voting members

3. Accept Agenda and Approve Minutes of (Gus Faris)
   a. Minutes approved 11-0-0-6-CNV(Yea-Nay-Abstain-Absent)

4. Membership (Fred Lorch)
   a. Attendance at meetings and assist with committee work will progress from visitor to corresponding to non-voting to voting over time. If you fail to attend on a regular basis, you will progress from voting to non-voting to corresponding to visitor to a fond (hopefully) memory.
   b. Gus appointed David John as Historian for TC 5.3

Members rolling off after Summer Meeting:
   Eugene Faris
   Hans Levy
   Walter Schwarz
   Jianshun Zhang
   Arsen Melikov

New Voting Members after Summer Meeting:
   Fred Bauman
   Darren Alexander
   Brian Rock
   Jack Stegall
   Mick Holland

New Corresponding Members after Summer Meeting:
   Luca Stefanutti
   John Gierzak
   Mladen Habensus
   Chad Huggins
   Mike Tardiff
   Brad Tully

Members deleted from roster after Summer Meeting:
   Duncan Phillips
   Jeffrey Stein

5. Section Head / Society Announcements (Gus Faris)
   a. ASHRAE is taking more notice of MBO (subcommittee Chairs are required to report on their activities)
   b. ASHRAE once again is considering requiring speakers to pay registration fees instead of having complimentary registration
      i. 14-0-0-3-CNV
6. Research Subcommittee (Ken Loudermilk)

Ongoing Research Projects
1335 -TRP Effects of Typical Inlet conditions on Air Outlet Performance. – PI
Needs to file updated contract end date
  PMS: D. John (Chair), K. Loudermilk, J. Stegall, L. Kloostra, G. Richardson
  Tour of UNLV facilities was offered to interested parties.
1522-TRP Establishment of Design Procedures to Predict Room Airflow Requirements in Partially Mixed Room Air Distribution Systems.
  PMS: K. Loudermilk (Chair), A. Livchak, J. Aswegan, J. Rimmer, F. Bauman
Update given by: Ken Loudermilk – Project is on track

Past Research Projects
1292 – TRP Disposition form needs to be filed
1373 – TRP Disposition form needs to be filed
1438 – TRP Disposition form needs to be filed

ACTIVE WORKSTATEMENTS
- WS 1500 Terminal Unit Design Guide (David John) – Disposition form needs to be filed
  - Waiting on results from a Texas A&M project
  - Tentative plan to submit prior to next meeting
- WS 1546 Expansion and Update of ADPI (David John) - was accepted by RAC
  - Submitted for review at the Winter Meeting 2011
- 1624 Effective Energy-Efficient School Classroom Ventilation (TC 2.1)
  - Jerry Sipes is liaison from TC 5.3
  - Comments were received back and the WS will be reworked and submitted.

ACTIVE RTAR proposals
- RTAR 1629 Testing and Modeling Energy Performance of Active Chilled Beam Systems (Fred Bauman)

NEW RTAR proposals
- RTAR Understanding the pressure drop and temperature measurement in coil performance testing for Standard 79 (Bryon Hagen)
- RTAR Effect on Ventilation Effectiveness of Passive Beams on Stratified Air Distribution Systems (Fred Bauman and Julian Rimmer)

URP proposals
  - None

Non-ASHRAE research reported by Gus Faris:
  ECM vs PSC motors in terminal units. This project is a follow up to 1292.
  The results will be donated to any VAV manufacturer who requests it
An electronic tool will be provided as well. Anyone who would like to attend the wrap up meeting for this project will be welcomed. Submit your name to Gus Faris.

   a. A vote to submit the system and equipment chapter edits for publication. Dan Int-Hout moved to approve as written, Fred Lorch seconded. Motion passed: 14-0-0-4-CV
   Tennison moved that videos be added to online-plus passed 14-0-0-4-CV

8. Standards Subcommittee (Fred Lorch)
      i. Byron Hagen chair reported on the initial meeting on Std 79
   b. ASHRAE Standard 70-2006
      i. Was reaffirmed in Albuquerque
   c. ASHRAE Standard 130
      i. Brad Tully is the proposed chair
   d. ASHRAE Standard 129
      i. David John reported on the status
   e. ASHRAE Standard 200
      i. Jerry Sipes reported on the status

9. Program (Andrey Livchak)
   2011 Winter Conference
   January 29-February 2, 2011
   Las Vegas, Nevada
   Theme: Zero Energy Design
   Program
   Energy and Comfort Performance of Active Chilled Beams Systems
   Chair: Fred Bauman

   2011 Annual Conference
   June 25-29, 2011
   Montreal, Quebec, Canada
   **Deadline for submission Feb. 14th.**
   Theme: Net-Zero Buildings
   Modeling Tools for Underfloor Air Distribution (UFAD) Design and Applications
   Chair: Fred Bauman
   Speakers:
   1. Kishor Khankari -- CFD methods
   2. Tom Webster -- Whole-building energy simulation
   3. Yan Chen -- Simplified design tool
   Modeling and Comparison of ECM and PSC Motors in Series
and Parallel Fan Powered VAV Terminal Units
Chair: Gus Faris
1. Dennis O’Neal “Performance of Series Fan Powered Terminal Units with Electronically Commutated Motors”
2. Dennis O’Neal “Performance of Parallel Fan Powered Terminal Units with Electronically Commutated Motors”

2012 Winter Conference
January 21-25
Chicago
Program

Introduction to the ASHRAE/REHVA chilled beam guide
Chair: Mick Holland
Speakers:
1. Chris Lowell “Active Beams”
2. Mick Holland “Passive Beams”
3. Ken Loudermilk “Controls”
4. Carlos Lisboa “Energy Study”

RP 1335 Results: Effects of Typical Inlet Conditions on Air Outlet Performance.
Chair: David John
Speakers?

2012 Annual Conference
June 23-28
San Antonio
Program:
Chilled beams…
Chair – Julian Rimmer
Speakers?

2013 Winter Conference
January 26-30
Dallas

2013 Annual Conference
June 22-26
Denver

10. Chilled Beam Report (Ken Loudermilk)

Call to order: Ken called to order at 11:30 AM

Minutes from Albuquerque reviewed
Attendees list available upon request

Handbook – DA
   Systems and Equipment chapter was worked on at this meeting
   Fundamentals chapter does not currently include chilled beams.

Program – AL
   One session at the LV conference, FB Chair
   Program for Chicago, MH Chair
      ASHRAE / REHVA group to develop a program based on the
      application guide
      Intermediate session on CBs and HVAC fundamentals, DH
      Chair
         Psychrometrics
         Controls?
         Energy?

Standards – JS
   Standard 200 is starting discussion on test methods – come to Monday
   meeting N240
   AHRI activities
      Compliance method being worked on currently, waiting on A200
   Do not need to wait for standard substantive completion for reviewing
   portions

Research – JS

   **RTAR 1629 - Testing and Modeling Energy Performance of Active Chilled Beam Systems**
      Comments from RAC, resubmitted

   The effect of passive chilled beams on the ACE and CRE performance of
   stratified systems – JR, FB, MH
      Will be prepared for Montreal

ASHRAE / REHVA design guide update – MH
   Mick provided update
   PS – Need to think about review process

Liaisons
   ASHRAE Standard 170 – KL
      Addendum H – went out for public review
   AHRI
      Sent IR to IBC regarding drain pans in beams

New Business
   Rename subcommittee, standards, and handbooks to remove the term
   “Chilled”

Other issues
Next meeting will be 90min in duration

Adjournment   Ken adjourned at 1:17 PM

11. Fan Coils (Gus Faris)
   Review Minutes from Albuquerque
      Jerry Moved to Approve these.
      Byron Seconded
      Unanimously Approved

   Handbook
      Byron
      Added DX-steam Coils are part of this section.

      Byron
      Future activity for Handbook chapters

Research
   Solicit ideas for future Fan Coil research
      STD 79 water pressure drop measurement location.
      Byron to Submit.

Program
   Provide ideas and timing for a Forum for Standard 79 proposed changes
      Jerry Moved to Drop this acoustic Forum as it has been decided to add this to 79.
      Gaylon Second
      Unanimously Approved

New Program ideas
   The Application of ECM Motors. John Bade to Chair.

Standards
   Standard 79-2006
      Need membership for standard.
      All Manufactures need to bring a non Manufacture to the standard committee. There must be a balance from the categories of General, Users, Producers
      First meeting was Saturday morning – review status and progress
      Work Plan to be submitted.
      TPS Change to be submitted.
      The Standard was broken into sections and working groups were formed to review and edit sections
      Gaylon R is Vice Chair
      Mike F is Secretary
      Sound Measurements will be added to the standard.
      Byron will Review STD 33.

New Business
How will 90.1 Leakage Standard effect ducted fan coils?
Approach 193 to remove Fan coils and work a leakage test into STD 79.
John Bade to Champion this.

Close meeting
Jerry Moved.

12. Webmaster Report (Kevin Gebke)
Kevin Gebke reported that there has been nothing but positive feedback on the TC 5.3 website. He encouraged all committee members to keep in mind that the website can be a useful tool in communicating. Please discuss any possibilities of website use with Kevin.

13. Liaison Report(s)
   Standards 55, 62.1, 90.1
   - Dan Int-Hout reported on 55
   - Dan Int-Hout reported on 62.1
   - Gus Faris reported on 90.1
     - Terminal unit leakage is a topic of concern
       - A table of leakage rates was compiled and is waiting on AHRI ACDD vote
   - Leon Klooster reported on SSPC 170
     - Addendum H has been approved
       - Chilled Beams will be acceptable for use in patient rooms
     - Addendum G (displacement) will be covered at April meeting in Chicago
   - TC’s 2.1, 2.6, 4.1, 4.3, 4.10, 5.2, 6.5, 7.7, 9.1, 9.6, 9.8, Other
     - 2.6 – Patrick Oliver reported on the lined ductwork testing for various liners at UNLV
     - 4.1 – Fred Bauman reported on load calcs efforts
     - 4.3 – Brian Rock reported that they are interested in the work of SPC 129
     - 5.2 – Kevin Gebke reported that they are working on a duct design guide
     - 7.7 – Gaylon Richard reported that SPC 111 is being opened for review
     - 9.6 – Fred Lorch reported that the patient room research is almost complete
     - 9.8 – Jim Aswegan reported nothing of interest to TC 5.3 occurred

TRG-7 UFAD, AHRI-880 and AHRI 885
- Dan Int-Hout reported on TRG7-UFAD: 80% complete on rough drafts
- David John reported on AHRI 880 TU leakage and end reflection is changed.
- Dan Int-Hout reported on AHRI 885 – A spreadsheet for NC calcs is being submitted again to ASHRAE once again.

USGBC
- Dan Int-Hout reported that 40 dBA will be a prerequisite for background sound in schools starting in 2012.

REVHA
- Mick Holland reported that working groups meet and progress has been made on the design guide. They are meeting tomorrow again and then a web meeting in March, followed by a meeting in Thailand in May 2011

14. Honors and Awards (Mo Hosni)
a. He has developed a list of awards and deadlines that will be given to Kevin Gebke for posting on the TC 5.3 website
b. Many members of TC 5.3 qualify for awards and should consider evaluating their points.

15. REHVA

16. New Business (Gus Faris)
   Hans Levy brought up that there is a filter that is almost as good as a HEPA filter but has a lower pressure drop.
   Gus Faris moved that ASHRAE do a better job of keeping the TC’s aware of activities that pertain to their area of expertise. Ken Loudermilk seconded. Vote was 15-0-0-3-CV

17. Adjourn