

## MEETING MINUTES

TC 6.5 - Radiant and Convective Space Heating & Cooling  
Dallas

January 28, 2013

Monday, 2:15 pm – 4:15 pm

*Secretary: Rob Warnke*

Incoming Chair: Bill Melvin

Incoming Vice Chair: Him Ly

I. **Call to Order:** 2:15 pm

II. **Roll Call:** Introduction of voting members, corresponding members, liaisons and guests.  
Nine voting members present, quorum does exist.

Robert Bean  
Him Ly  
Bill Melvin  
Dave Nazzaro  
Peter Simmonds  
George Hoekstra  
David Springer  
Dan Sullivan  
Richard Watson

III. **Approval of Minutes from Previous Meeting**

Peter made a motion to approve meeting minutes as noted. George 2<sup>nd</sup>. Voting - Dave, George, Him, Robert, Peter, Dan, Bill & David S. Passed 8-0.

IV. **TC Chairman's Breakfast Report , Section 6**

Bill Melvin

- A. High Tower Award presented to Lucas Hymen
- B. ASHRAE member BIO on-line. – Asking to update any information. Make sure to indicate what your discipline is.
- C. Another BETA test for Online meetings. Started two meetings ago. Official meeting on-line for those having trouble getting a Quorum.
- D. Master Calendar available for Google. Online scheduling of meeting attendance.
- E. Australian Institute for Refig. AC and heating is open to public comment.
- F. ASHRAE wanted a renewed emphasis on code of ethics.

## V. Subcommittee Reports

- A. Program: (D. Abellon) – see attachment

## UPCOMING CONFERENCES

- I. 2013 Summer Conference
  - a. Denver, CO
  - b. June 22-26, 2013
  - c. Program on Fundamentals of Radiant Cooling System Design and Construction was approved. (Seminar 38 – 6/26/13 from 8:00 AM to 9:30 AM)  
Speakers: Peter Simmonds, Robert Bean, Andrew Reilman
  - d. **Call for Seminar / Forums – Due February 11, 2013**
  
- II. 2014 Winter Conference
  - a. NYC
  - b. January 18-22, 2014
  - c. **Conference Paper Abstracts Due: March 15, 2013**
  - d. **Conference Paper Notifications: April 5, 2013**
  - e. **Technical Papers Due for Review: April 19, 2013**
  - f. **Website opens for Seminar/Forum/TPS & CPS Proposals: June 3, 2013**
  - g. **Seminar, Forum, TPS & CPS Program Proposals Due: August 12, 2013**
  
- III. 2014 Summer Conference
  - a. Seattle, WA: June 28- July 2, 2014

### **2014 Winter Conference Programs Proposal**

- 1. The Effects of Glazing on Radiant Heating & Cooling Systems
- 2. ASHRAE Standard 90.1 Addendum R
- 3. Piping & Control Strategies for Combination Radiant Heating & Cooling

### **2014 Annual Conference Paper Proposal**

- 1. Infrared Heating – Samer Hassan

## B. Standards:

1. 90.1 Committee Liaison (D. Watson, Jaap), Energy Related Standards\*
  - i. Research and standards that are in Europe look at things as systems more than we do in ASHRAE... but not as codified as we do. We can do better looking at entire systems.
  - ii. Peter referred to a study that was done with relationship to Appendix G that doesn't refer to radiant but defines how they do everything and which program they use.
  - iii. Project on PNNL website attributes to a total of 50% savings achieved
  - iv. 90.1 achieved goals and mutually agreed and striving for 50% over previous.
  - v. 2013 standard out soon!
  - vi. Looking for Chip's results for beta version of RP1383
2. SSP 55 Committee Liaison (M O'Rourke)\*
  - i. Has final sections done at this meeting. Sending out for public review. Plan is to republish a new standard in 2013. Should be easier to read with better organization... and have flow charts.
3. SSP 152 (Dave Springer)\*
  - i. Section 7. Robert Bean and Aaron Stotko reworked John Andrew's original formula the formula to a method that did work. But, it focused on baseboard... not radiant (no downward and edge loss). Aaron and Robert will work with Dave Springer.
  - ii. Dave Springer – moved that committee votes to support development of section 7 of 152.  
Peter second. 8-0 vote approved.

## C. Handbook: (P. Simmonds)

1. No snow and ice melt changes for Chapter 51 from Robert Bean.
2. Chapter 54 – we need to start working on it and look for method of distribution to the team.
3. April 19<sup>th</sup> for chapter 54 for radiant heating and cooling (2014)
  - a. Peter would like to submit early.
  - b. If going to present in Denver needs to have it approved prior to Denver's meeting. We will put it out and do it by a ballot vote. Will resend it.
4. Systems and Applications were organized. Found a lot of Fundamentals. Created a third chapter.
5. Peter discussed how a CD gets online.
  - a. CD is separate. Submit manuscript to get approved and goes to publishing software and creates PDF one time and CD is burned.
  - b. On line version Updates – extra content that cannot put into the print.

- i. Maybe put a link to our TC page to get charts etc.?

D. ALI, Education, Publication: (R. Bean)

1. Contacted ASHRAE and took it under recommendation to having a webinar on heating and cooling.
2. Asking for development of another course.
3. Has short course for ASHRAE 55 done by April and run at Denver meetings.  
Overview of thermal comfort principals.
  1. If not prepared by Denver then webinar in the fall with radiant cooling and heating.

E. Research: (D. Sullivan)

1. Highlights from Research breakfast.
  - i. Recognition for Hermand Bales for research award.
    1. He got RP2 – 49 y.a.
  - ii. 62 Current active RP's worth 12 million dollars.
  - iii. RP1383 – contract with Wrightsoft.
    1. Behind schedule but is being cleaned up and be completed by a week from this Friday.
    2. Chip has a list of items to get addressed
    3. Any follow up research hoping to be done in smaller steps.
      - a. First, needs to be sketched up.
      - b. Then the list that Chip has.
    4. If can send before May 15<sup>th</sup> it can save half a year.
      - a. Has to be written and TC has to vote.
2. Insulation under snowmelting slabs. Should it be there?
  - i. Consider frost formation. On/Off gets frost accumulation.
  - ii. If want to keep free from frost will be running 30-50% more often without insulation.
  - iii. Never been research to calculate frost occurrence on surface.
3. Jing Juan (UC B) Discussed a paper that was written that resulted in a radiant cooling system using 46% more energy than a FA system.
  - i. Peter gave his opinion and explained that problem is that FA system was running only 8 hours and the radiant system was running 24 hours.
  - ii. Possibly put in for RTAR?

F. Snow and Ice Melting:

1. No updates.

## VI. Old Business:

- A. RP for 13-83,
  - a. Software punch list
    - i. Test/fix
    - ii. E+ import
    - iii. Make CD
  - b. Write Report
  - c. Write paper
  - d. Would like to add Operative temperature
  - e. Possible to vote on and accepted in June, 2013? Beta testing.

## VII. New Business:

- A. Infrared Heating – Samer Hassan.
  - 1. Samer is willing to rewrite the ASHRAE handbook regarding thermal efficiency for the IR heater.
    - i. Since not many, if any, people in TC6.5 are qualified to evaluate it was recommended he work together with competitors to validate.
    - ii. He will make changes and submit to Peter.
- B. Richard Bowman – Software
  - 1. Ability to add audio to a PowerPoint presentation.
    - i. Great for a webinar.
    - ii. Richard to be the point person for this.

**Adjourned:** 4:05 pm (P. Simmonds), (seconded R. Bean)