

**2013 ASHRAE WINTER MEETING  
Dallas, TX**

**TC6.3 CENTRAL FORCED AIR HEATING AND COOLING SYSTEMS  
Tuesday, January 29, 2013 1:00 – 3:30 PM  
Location: Majestic 4 (H37)**

**Sponsored Program**

**Future Directions in Sizing Residential and Small Commercial HVAC Equipment**  
Room: Lone Star A3 on Monday, Jan. 28<sup>th</sup>, 11AM to noon

Overview:

The seminar will focus on the key issues related to the sizing of modern residential and small commercial HVAC equipment. Industry updates of historical HVAC sizing procedures will assist manufacturers, designers and installers working with new innovative multi and variable capacity HVAC equipment. This equipment is quickly gaining popularity in the residential and small commercial HVAC market. One presentation will provide an overview of the recently updated industry accepted, residential and small commercial HVAC equipment sizing procedures (e.g. ACCA Manual S), which is referenced in energy codes and home performance contracting energy conservation programs. Another presentation will focus on research conducted to justify greater sizing flexibility when sizing heat pumps in heating dominated climates to reduce back-up electric resistance heating, in climates where humidity control has been addressed or is not a critical design issue. A third presentation will focus on “sizing for humidity control” based on dehumidification modeling analysis efforts conducted as part of ASHRAE RP-1449

**Full Committee Agenda**

1. Call to order J. Douglas
  - a. Meeting was called to order at 1:03 p.m.
2. Introductions All
  - a. Introductions were made.
3. Determination of a quorum J. Douglas
  - a. Reviewed current TC6.3 roster
  - b. Quorum was met: 7 of 13 voting members present.
4. Announcements and Highlights J. Douglas

From TC Chairs Breakfast Meeting

  - a. **2012-2013 Hightower Award Nomination Process and Deadline  
MTG.EAS – Energy-Efficient Air Handling Systems for Non-Residential Building**  
Scope: MTG.EAS will coordinate activities of related ASHRAE technical and standards committees to facilitate development of packages of tools, technology, and guidelines related to the design, operation, and retrofit of energy-efficient air-handling systems in new and existing non-residential buildings. The intent is that these products can be integrated with industry processes and can be used to ensure that ASHRAE energy saving targets are met, to carry out high-profile demonstrations of improved air-handling systems, and to identify further energy saving opportunities. Within ASHRAE, the MTG also will coordinate activities to update related parts of ASHRAE Handbooks and Standards (particularly 90.1, 62.1, and

189.1) and to develop related education programs for technology implementers. Outside of ASHRAE, the MTG will monitor related activities and represent ASHRAE interests where permitted to provide a conduit for related information transfer to ASHRAE members. MTG.EAS is concerned with the interactions between non-residential air-handling system components, the building, and related activities, which include at least the activities of TCs 5.1 (Fans), 5.2 (Duct Design), 5.3 (Room Air Distribution), 1.4 (Control Theory and Application), 1.11 (Motors and Motor Controls), 1.8 (Mechanical System Insulation), 4.3 (Ventilation Requirements and Infiltration), 4.7 (Energy Calculations), 7.7 (Testing and Balancing), 7.9 (Building Commissioning), 7.1 (Integrated Building Design), **6.3 (Central Forced Air Heating and Cooling Systems)**, and 9.1 (Large Building Air-Conditioning Systems), as well as TRG7 (Under Floor Air Distribution) and TG3 (HVAC&R Contractors and Design Build Firms). For more information on these two MTGs and the four other MTGs, please go to the MTG section on the following web page: <http://www.ashrae.org/standards-research--technology/technical-committees>

d. **Option for TC Subcommittee Meetings via Conference Calls and Web Meetings**

More and more TCs are taking advantage of a new Society service that allows TCs to hold subcommittee meetings by phone and/or web. Many TCs are finding this to be a more efficient way for them to conduct subcommittee business and it also allows TC members that can't travel to meetings on a regular basis a way to still contribute to the TC. Such a change can also eliminate potential conflicts with the TC's program sessions at Society meetings. Please pass your conference call/web meeting/webinar requests on to the Manager of Research and Technical Services, Mike Vaughn, at [mvaughn@ashrae.org](mailto:mvaughn@ashrae.org) or [MORTS@ashrae.net](mailto:MORTS@ashrae.net)

f. **Upcoming Program Dates**

For Annual Meeting in **Denver, June 22-26, 2013**, deadlines:

- i. 2/11/13: Proposals for seminars and forums due
- ii. 3/25/13: Notification of conference paper, seminar, and forum accept/ reject status
- iii. 5/6/13: Upload of presentations begin
- iv. 6/3/13: PowerPoint presentations due
- v. Conference Website: <http://www.ashrae.org/denver/>

For Winter Meeting in **New York, January 18-22, 2014**, deadlines:

- i. 3/15/13 – Conference Paper abstracts due.
- ii. 4/19/13 – Full Technical Papers due
- iii. 7/2/13 – Conference Papers due (for abstracts that were accepted)

h. **NEW ASHRAE Terminology WIKI Launched**

Over 6,000 definitions for terms found in ASHRAE publications can now be seen in the new free ASHRAEwiki, a centralized resource for referencing terminology definitions. Visit [ASHRAEwiki.org](http://ASHRAEwiki.org) for numerous building terms focusing on mechanical, envelope, electrical, lighting, load calculations, design, water design/conservation and more.

<http://wiki.ashrae.org/index.php/ASHRAEwiki>

- 5. Agenda additions All
  - a. None
  
- 6. Approval of minutes from San Antonio J. Douglas
  - a. Jon Douglas requested that someone make a motion to approve the minutes from San Antonio. It was moved to approve the minutes from San Antonio. The motion passed 7-0-0.
  
- 7. Membership/Roster J. Douglas
  - a. The roster will be updated to add 3 people as voting members. Jon will also send an email out to all corresponding members on the list and “clean up” our membership roster with those who want to stay active. The following three individuals will be made voting members:
    - i. Kevin Mercer, Carrier Corp.
    - ii. Judith Jennings, PG&E
    - iii. Jim Cummings, Florida Solar
  
- 8. Liaison reports (as they arrive) Liaisons

The handbook liaison arrived and introduced herself to the committee. She is Annette Dwyer. Our committee has two chapters with revision deadlines out in 2015.

- 9. Subcommittee reports
  - a. Programs Kevin Mercer
    - i. Seattle or New York Tech or Conf. Program
      - 1. RP 1449 on humidity is nearing completion. Full technical papers are due 4/19/13 to begin review for New York program. Once PMS approves final report, committee to decide best avenue for paper session.
      - 2. Another program idea was on the VRF test houses. Jim Cummings from Florida Solar, Roderick Jackson of Oak Ridge Natl. Lab and Roy Crawford of UT Tyler were all suggested as potential paper submitters.
      - 3. Larry Brandt and Doug Kosar from Gas Technology Institute proposed a conf. paper session around gas heating data with some big box retailers. He suggested he could do two conference papers and then a third paper could come from Martin Thomas of NRCan. Martin had done some lab and field work with a condensing RTU on the NRCan campus.
    - ii. Dallas Programs
      - 1. Idea to do a seminar on economizers. Ried Hart had done work on some field installations with FDD, could have a manufacturing representative on what consumers are willing to pay for (J. Douglas?) and then Kristin Hememerer of UC Davis also had data on technician observations.
    - iii. Future program topics
      - 1. Building America project is pulling furnaces in from the field and testing them in the lab using 103 method and at their installed conditions and comparing results. Larry Brandt from GTI brought this up as potential program idea. Kristin Hememerer maybe to talk about technicians/ installed practices? Potentially talk with Bruce Wilcox too... Bwilcox@lmi.net
    - iv. Call for new topics
      - 1. None
  - b. Research Mike Lubliner
    - i. Steve Hancock started out report noting that research proposals (RTARs and WS) are running ‘dry’ and encouraged the TC to submit for research proposals. RAC getting less than 6 RTARs and WS to review, but

funding is still coming in. Noted ASHRAE has about \$12M in contracts right now going on and about \$2M in budget to spend in 2013.

- ii. There are no new RTARs in process right now. Meeting started going through list of research topics to consider:
  - 1. New Res. Construction Efficiency Requirements implications on HVAC equipment, kind of did some of this with RP 1449.
  - 2. Comparing residential equipment sizing methods Vs. real world
  - 3. Fault Diagnostics, CLIMA talk alliance?
  - 4. Did HVAC efficiency improvements result in bottom-line energy consumption reduction
  - 5. How much performance degradation over time for AC and heat pumps
  - 6. Field study of performance of economizer (Kristin would start an RTAR on this topic)
  - 7. With variable speed systems becoming more prevalent, develop a method of test for variable speed systems
- iii. RP-1449 contract expired January 1, 2013 per RAC documentation, but committee stated a no cost extension was granted by PMS. Mike Lubliner recommended TC approve the report. Jon Douglas will conduct a letter ballot after all have read the report to accept or reject the 1449 report.

c. Handbook

Chuck Gaston

- i. 2016 Equipment – Chapter 10 Small Forced Air Systems and Chapter 33 Furnaces
  - 1. Handbook right now is fine. Requested anyone with additions to see Chuck Gaston.
  - 2. Errors may be corrected in the online version.



Handbook Chapter  
Review Form.doc

d. Standards

Ian, Paul Haydock

- i. Standard 193 (Method of test for air tightness of air handlers) discussion: We want to reaffirm standard 193, (per Ian). Mike L. requested people submit how the standard is being used, being spec'd from CEC, Florida Code, EPA, etc. Mike L. made motion to reaffirm Std. 193, Dianne J. second'ed the motion, and motion passed 7-0-0.
- ii. New 2013 standard 62.2 coming out soon, in 4 to 6 months. California now requires it for all new construction, so it is starting to really be used. Also thinking about adding some commentary around filtration recommendations, or particulates reduction as part of standard 62.2. They may require some higher MERV rated filters, and more 2 and 4 inch filters.
- iii. Standard 152-2004, still working on some revision. Was started in 2007 on the 2004 standards. Fixed the forced air items, had hoped to work on hydronic chapter, but was not successful. Anything referring to radiant panels was pulled out. TC 6.5 supported reconstituted the committee to focus on radiant panels. TC 6.3 is cognizant TC, but the standard deals with some things outside the area of this TC. Thus, need to approve as is, and then reconstitute the committee once standard approved by ASHRAE. Standard will be out for review very shortly with comments available for review by Denver.
- iv. Update on SPC103-2007R: First official meeting of the SPC. 9 or 10 voting members were present. The accomplishments are 1) reviewed and agreed to Title, Purpose and Scope; 2) established some ground rules, mainly that revision requests should be submitted to me if possible on a revision form (I'll be glad to forward to anyone who asks), 3)

covered most of the Mandatory Language changes that were requested by ASHRAE staff. The original purpose for re-forming this SPC was to adopt the Mandatory Language changes that ASHRAE Staff provided, so we have a really good start in being almost done with that task. There are promises of revision requests which will hopefully come in before the June meeting so that the SPC can focus on the resulting changes and work efforts. We will most likely utilize the Working Group method as WG areas become evident.

10. Old Business

- a. None

11. New Business

- a. None

12. Adjourn

- a. Meeting was adjourned at 3:30 p.m.