

TECHNICAL COMMITTEE 2.8 – Meeting Notes: Annual Meeting – Albuquerque 2010

MEETING MINUTES –June 2010

AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS, INC.
1791 Tullie Circle, NE / Atlanta, GA 30329
404-636-8400

TC/TG/TRG MINUTES COVER SHEET

TC/TG/TRG No. TC 2.8 DATE: July 28, 2010

TC/TG/TRG TITLE: Building's Environmental Impact and Sustainability

DATE OF MEETING: June 27, 2010 LOCATION: Hyatt Albuquerque, Albuquerque, NM

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS & ADDIT'L ATTENDANCE
Tom Lawrence (Chair) John Swift Dave Grumman Mitchell Swan Don Brudage Michael Deru Tom Cappellin Andy Price H. Jav Enck Vikas Patraik Malcolm Lewis Frank Mills Dunstan Macauley Ashish Rakheja Rav Man-Hung Yau		Katherine Hammock		William Coad Paul Torcellini Doug David Fick A. Kader Darwiche Janice Means Som Shrestha Joy Altwies Harvey Bryan Kevin Cross Kevin Brown Thomas Kelly David Okada Jim Crawford Ng Kong Dick LeClaine Mark Huber Brett Van Horn Erik Kolderup Daryn Cline Mark Harris Penny Cole Jian Zhang Jessica Turner Jay Eldridge

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DISTRIBUTION

ALL MEMBERS OF THE TC/TG/TRG

TAC CHAIR	Don Brundage
TAC SECTION HEAD	Brian Fricke
SPECIAL PUBLICATIONS LIAISON	Stanley Mumma
STANDARDS LIAISON	Hoy Bohanon
HANDBOOK LIAISON	Jeff Traylor
PROGRAM LIAISON	Joy Altwies
RAC RESEARCH LIAISON	Iain Walker
CTTC LIAISON	Frederic Genest
ALI LIAISON	Florentino Mendez
STAFF LIAISON (RESEARCH)	Michael Vaughn
STAFF LIAISON (STANDARDS)	Stephanie Reinche

Note: These draft minutes have not been approved and are not the official, approved record until approved by this committee.

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TC/TG/TRG MEETING SCHEDULE				
LOCATION – past 12 months	DATE	LOCATION - planned next 12 months	DATE	
Orlando	Jan 2010	Las Vegas, NV	Jan 2011	
Louisville	June 2009	Montreal, Can	June 2011	
TC/TG/TRG SUBCOMMITTEES				
Function		Chair		
International Program Handbook Research Green Guide Existing Buildings		Ashish Rakheja, Frank Mills Kevin Brown Dave Grumman Andy Price John Swift Dunstan Macauley		
RESEARCH PROJECTS – Current		Monitoring	Report Mode	
Project Title	Contractor	Comm.Chm.	At Meeting	
LONG RANGE RESEARCH PLAN				
Rank	Title	W/S Written	Approved	To R & T
HANDBOOK RESPONSIBILITIES				
Year & Volume	Chapter Title	No.	Deadline	Handbook Subcom. Chair/Liaison
2009 Fundamentals	Energy Resources	34		Brundage/ Bansal
2009 Fundamentals	Sustainability	35		Grumman/Bansal
STANDARDS ACTIVITIES - List and Describe Subjects				
TECHNICAL PAPERS from Sponsored Research - Title, when presented (past 3 yrs. present & planned)				

TECHNICAL COMMITTEE 2.8 – Meeting Notes: Annual Meeting – Albuquerque 2010
MEETING MINUTES –June 2010

Appendix 3
TC/TC/TRG Sponsored Symposia - Title, when presented (past 3 yrs. present & planned)
Appendix 4
TC/TG/TRG Sponsored Seminars - Title, when presented (past 3 yrs. present & planned)
Appendix 5
TC/TG/TRG Sponsored Forums - Title, when presented (past 3 yrs. present & planned)
Appendix 6
JOURNAL PUBLICATIONS - Title, when published (past 3 yrs. present & planned)
Lawrence, T.M. and J.E. Braun. 2007, “Calibrated Simulation for Retrofit Evaluation of Demand-Controlled Ventilation in Small Commercial Buildings”, <i>ASHRAE Transactions</i> 113(2):227-240. Lawrence, T.M., 2008, “Selecting CO ₂ Criteria for Space Monitoring”, <i>ASHRAE Journal</i> 50(12):18-27. Lawrence, T.M., J. Perry and P. Dempsey, 2010, “Making Every Drop Count: Retrofitting Condensate Collection on HVAC Air Handling Units”, <i>ASHRAE Journal</i> 52(1):48-54.

Appendix 1

RESEARCH PROJECTS

TC 2.8 Research Projects Status

No active projects at this time, several RTARs in process.

Active projects

#	Title	Joint TC	Cognizant Subcommittee/ Contractor	PMSC	Dates / status

Appendix 2

RESEARCH PLAN

**Technical Committee 2.8
 Research Plan**

The following outlines the current status in the development of our research objectives and plan.

Title	TC Priority	Prior TC priority	Society status	TC Status	Sub-com
<i>See Research Plan and summary at end of these meeting minutes</i>					
One RTAR voted out by the committee at the Albuquerque meeting (Originally approved in Orlando. The RTAR was misplaced and therefore has to be re-submitted) “Measurement of Energy Performance of ASHRAE Energy Design Guides (AEDG)”	1			Voted for submission	

Appendix 3

TECHNICAL PAPERS FROM SPONSORED RESEARCH

No projects completed at this time

RP	Title	Contractor	Approved	Paper

Appendix 4

TC/TG/TRG SPONSORED Programs

PRESENT:

Albuquerque 2010

Forum 1	How International is Sustainability? What is Being Done around the Globe? What Should be Done? (Frank Mills)	Sunday, June 27 11:00 – 11:40 Cimarron
Conference Paper Session 11	Evaluating the Performance of Existing Buildings (J. Kevin Cross)	Monday, June 28 11:00 – 12:00 Mesilla
Seminar 57	Designing and Building a Large Scale Net-Zero Energy Building (Shanti Pless)	Wednesday, June 30 11:00 – 12:30 Mesilla <i>COSPONSOR</i>

PLANNED:

Las Vegas, 2011

- See TC 2.8 Program Plan attached to minutes

ASHRAE TC 2.8 - Building's Environmental Impact and Sustainability

ANNUAL 2010 MEETING (Albuquerque)

ACTION ITEMS

1. Roll call and Introductions Lawrence

- Meeting called to Order w/ Quorum at 5:04
- Roll Call
- Introduction

2. Accept agenda/approve minutes of Louisville meeting Lawrence

- Approval of Minutes:
 - Motion by Andy Price
 - Seconded by Dave Grumman
 - Minutes approved unanimously with no amendments.

3. Announcements/Membership/Listserv Lawrence

- The procedures for signing up with the listserv were discussed.
- All new incoming provisional members and guests were reminded that the bulk of the TC work is conducted in the subcommittees, which meet on Sunday afternoon.

4. Standing Committee Liaisons (TAC/RAC/StdCom/Program/SpecPub/ALI)

- No Liaisons present.

5. Subcommittee Reports

5.1 Research- . Andy Price

- Proposed RTAR approved in Orlando, “Measurement of Energy Performance of ASHRAE AEDG” was misplaced and has to be resubmitted.
- Proposed RTAR, “Towards new indoor air quality criteria by understanding the perception and sensation of occupants”, by Diotima von Kempster requires editing to conform to the submittal requirements. Janice Means will assist.
- Proposed RTAR, “Documenting performance of high performance buildings by applying the ASHRAE Performance Metrics Protocol (PMP) and the ASHRAE Building Energy Quotient (BEQ)”, will be written by Michael Deru, Mitchell Swann, and Dunstan Macauley.

5.2 Programs- Kevin Brown.

- Seminar: 189.2 (Still needs title), 189.2 will sponsor, TC2.8 will co-sponsor
- Seminar: Low Carbon Cities 3: Needs a Speaker – Mitch Swann following up with Frank Mills to find local Las Vegas speaker
 - In Asia – Raymond Yau
 - In UK – Frank Mills
 - In India – Ashish Rakheja
- Forum: Embedded Energy – Build or Renovate (Dunstan Macauley)
- Seminar: Introducing the Proposed Standard 191 on Water Conservation, John Swift, 191 will sponsor, TC2.8 will co-sponsor

5.3 Hand Book - Dave Grumman

- TC is responsible for two handbook chapters: “Energy Resource” and “Sustainability”
- College of Fellows reviewed new Sustainability Chapter with one comment
- Energy Resources chapter is due in spring of 2012. Due to the publishing date of the Energy Outlook data by the Energy Information Administration, the final version of the chapter is allowed to be turned in late so that the data is not more than three years outdated when the handbook is published.

5.4 Green Guide - John Swift

- 3rd Edition of the Green Guide to be released at Green Build – Chicago
Will host a forum in Las Vegas for the 4th edition. The purpose of the forum will be to generate recommendations for the 4th edition.

5.5 International – Ashish Rakheja / Frank Mills

- International subcommittee would like to review Green Guide and Standard 189.12 and make recommendations from an international perspective. The exact procedure for how this would happen, particularly in regard to Standard 189.1, will need to be worked out.

5.6 Standards –

- SSPC 189.1 and Standard 189.1 Design, Construction and Operation of High Performance Green Buildings (was Hammack)
Katherine Hammack has been appointed as Assistant Secretary of the Army in charge of facilities and thus can no longer serve on SSPC 189.1 nor TC 2.8. We will need a new liaison, and for the near-term Tom Lawrence will provide that role.
- SPC 189.2P Design, Construction and Operation of High Performance Green Healthcare Facilities (Fick)
They are just getting started in reviewing the recently released Standard 189.1 for changes that would be required for healthcare facilities.
- SPC 191P Standard for the Efficiency Use of Water in Building, Site and Mechanical Systems (J. Swift).
 - Hope to have a draft for public review in fall 2010.
 - Will hold public session in Las Vegas for Standard 191P

5.7 Web Site - Dunstan Macauley

- Please provide recommendations on improving the Website

5.8 Existing Buildings – Dunstan Macauley

- The sub-committee to host forum in Las Vegas on Embodied Energy; the embodied energy savings of an existing building vs. the replacement cost.
- Tom Lawrence and Dunstan Macauley will also write a Journal article on the topic.

6. Related Activities

TECHNICAL COMMITTEE 2.8 – Meeting Notes: Annual Meeting – Albuquerque 2010

MEETING MINUTES –June 2010

- 6.1 LEED for Homes (no official liaison)
- 6.2 Advanced Energy Design Guides– (Paul Torcellini)
- 6.3 Green Globes/GBI (Harvey J. Bryan)
- 6.4 DASH (Michael Deru)
- 6.7.1 Design towards NZEB Short Course (Frank Mills / Dunstan Macauley)
 - Course was given in Orlando, very successful
 - The course has to be shortened; the presentation ran a little long.
 - Recommended to ALI that the course title be revised from Designing Towards Net Zero Energy Commercial Buildings to Designing Towards Net Zero Energy Buildings to detail the advances in NZEB in other market sectors.

INPUT FROM OTHER TCS

- Basic discussions of the work done within a couple of other TCs were briefly discussed.

Old Business- no other reports

New Business

- 8.1 Short Course on Designing Towards Net Zero Energy Commercial Buildings- Dunstan Macauley
 - scheduled for Orlando.

Adjourn

- Andy Price – move to adjourn
- 2nd by Dave Grumman
- Unanimous- motion passed- meeting adjourned

TC 2.8 Web Site

www.tc28.ashraetcs.org

TC 2.8 E-mail List

This list is only for communications related to ASHRAE TC 2.8 Building Environmental Impacts and Sustainability. Do not distribute messages of any commercial nature.

To subscribe or unsubscribe to the list, you can go to the TC 2.8 list web site:
<http://lists.onebuilding.org/listinfo.cg/tc28-I-onebuilding.org>

To send a message to all subscribers to the list, address your message to:

tc28-I@lists.onebuilding.org

Note: ASHRAE does not operate this list. Please do not ask them for help. If you have any questions, please contact: Jason Glazer JGlazer@gard.com

Thanks to Jason and GARD Analytics for hosting this list!

RESEARCH PLAN (See Research Report above)

January 2010

RESEARCH TOPICS (not listed in order of priority)

1. Measurement of Energy Performance of ASHRAE Energy Design Guides (AEDG)
Author: E Mitchell Swann, Kevin Cross, Paul Bertram
Possible co-sponsors: TRG4, TC 7.1, TC 7.6, TC 7.8, TC 7.9
Submitted to ASHRAE, waiting for comments.
2. Control practices present in buildings and trade-offs with defined “green” practices or goals (possible precursor to guidelines).
Author: Vikas Patnaik, Andrew Price
Possible co-sponsors: TC 1.4
3. Documenting performance of high performance buildings using Standard 189.1-2009 by applying the ASHRAE Performance Metrics Protocol (PMP) and the ASHRAE building labeling method.
Author: Mitchell Swann, Michael Duru, Dunstan Macauley
Possible co-sponsors: TC 7.6
4. Towards new indoor air quality criteria by understanding the perception and sensation of occupants.
Author: Diotima von Kempster, Janice Means
Possible co-sponsors: TC 2.1
5. Integrated sensors in buildings for continuous monitoring.
Author: Janice Means, Jay Enck
Possible co-sponsors:
6. Condensate collection and use.
Author: Tom Lawrence, Andrew Price
Possible co-sponsors: TC 6.1

CO-SPONSORED

1. Comparative study of energy and water usage for HVAC systems using evaporative, dry or hybrid cooling equipment.
Author: Tom Bugler
Possible co-sponsors: TC 8.6 (lead), TC 3.6, TC 2.8, SPC 191
2. Energy use for air conditioning and its effects on office productivity in hot-humid tropical regions.
Authors: Eric Adams, Pawel L Wargocki, David Wyon
Possible co-sponsors: TC 2.1 (lead), TC 2.5, TC 2.8, TC 5.12, TC 7.6

ADDITIONAL IDEAS

- Impact of tenant behavior on building performance.
- Documenting persistence of high performance buildings.
- What information do building operators need to maintain and operate a green building?
- Sustainability Assessment of Absorption, Adsorption, and Vapor Compression Chillers.

- Utility management practices (smartgrid, etc.) and impact on HVAC performance, reliability and “green” practices (will smartgrid achieve its desired result at the expense of HVAC equipment/customers?)
- What are best “green” maintenance practices and what building management, control or system functions are necessary to support them?

- Strategy 1.1 Develop design guidance to integrate indoor environmental quality (IEQ), energy efficiency and other aspects of sustainable building performance.
- Strategy 1.2 Lead the drive toward the design, construction and operation of net-zero-energy buildings through research, publications and education.
- Strategy 1.3 Develop performance metrics and rating systems to certify operational performance of buildings for energy efficiency and IEQ.
- Strategy 1.4 Provide training, guidance and tools for building operators.
- Strategy 1.5 Conduct research and develop guidance to enhance the effectiveness of maintenance procedures.
- Strategy 1.6 Promote the use of life-cycle-cost analysis to building owners that will encourage sustainable building construction, operation, and renewal.
- Strategy 1.7 Collaborate with other organizations to integrate HVAC&R systems with other building systems to enhance the effectiveness of Total Building Design and Integrated Practice.
- Strategy 1.8 Promote research leading to the development of equipment & systems that support sustainable buildings.

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