

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING
ENGINEERS, INC.
1791 Tullie Circle, NE, Atlanta, Georgia 30329
404-636-8400**

TC/TG/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/TRG No. TC 2.8 DATE: January 21, 2008

TC/TG/TRG TITLE: Building Environmental Impacts and Sustainability

DATE OF MEETING: January 21, 2008 LOCATION: New York City, NY

MEMBERS PRESENT	MEMBERS ABSENT	EX/OFFICIO MEMBERS AND ADD'L ATTENDEES
Drury B Crawley (CHAIR) Tom Lawrence (VC) David Grumman Don Brundage Frank Mills Gail Brager Harvey J Bryan Janice Means John Swift Kevin Cross Malcolm Lewis Paul Torcellini Tom Cappellin Vikas Patnaik Don Larsson	Ismena Deacon (IM) William Coad	H Jay Enck (STDS) Jaap J Hogeling (CM) Joy Altwies (PRGM) Michael Deru Stephen Turner (HNBK) Tia Heneghan (Secretary)

(Verify positions since some of the abbreviations on roster were unclear)

TAC CHAIR Drury B Crawley

TAC SECTION HEAD

RAC RESEARCH LIAISON

SPECIAL PUBS LIAISON

HANDBOOK LIAISON

CHAP TECH TRANS LIAISON

PROGRAM LIAISON

PROF DEV COMM (EDUC)

STANDARDS LIAISON

STAFF LIAISON (STANDARDS)

STAFF LIAISON (RESEARCH/TECH)

Abbreviations: CM = Corresponding Member, IM = International Member

[* NOTE: These draft minutes have not been approved and are not the official, approved record until approved by this committee.]

ASHRAE TC/TG/TRG ACTIVITIES SHEET

DATE: Current as of 24 June 2007

TC/TG/TRG NO.: TC 2.8 **TC/TG/TRG TITLE:** Building Environmental Impacts and Sustainability

CHAIR: Drury B Crawley **VICE CHAIR:** Tom Lawrence **SECRETARY:** Tia Heneghan

TC/TG/TRG MEETING SCHEDULE			
Location-Past 12 Months	Date	Location-Planned Next 12 Months	Date
New York	2008-01-20	Salt Lake City	2008-06-21
Long Beach Annual Meeting	2007-06-24	Chicago	2009-01-24
Dallas Winter Meeting	2007-01		

TC/TG/TRG SUBCOMMITTEES	
Function	Chairman
Program	Joy Altweis
Handbook	Stephen Turner
Research	Paul Tocellini
Standards	H. Jay Enck
Green Guide	John Swift

RESEARCH PROJECTS-CURRENT			
Project Title	Contractor	Monitoring Comm.	Report Made At Meeting

LONG RANGE RESEARCH PLAN							
Rank Title	RTAR			Work Statement			RAC Approval for bidding
	Writ-ten	TC Approv-ed	Subm'd to RAC	Writ-ten	TC Approv-ed	Subm'd to RAC	

HANDBOOK RESPONSIBILITIES				
See attached notes				
STANDARDS ACTIVITIES – List and Describe Subjects				
TECHNICAL PAPERS from Sponsored Research-Title, when presented (past 3 yrs. present & planned)				
•				
TC/TG Sponsored Symposia-Title, when presented (past 3 yrs. present & planned)				
•				
TC/TG Sponsored Seminars-Title when presented (past 3 yrs. present & planned)				
•				
TC/TG Sponsored Forums-Title, when presented (past 3 yrs. present & planned)				
•				
JOURNAL PUBLICATIONS, when published (past 3 yrs. present & planned)				
None				



ASHRAE

Technology for a Better Environment

TC 2.8 Building Environmental Impacts and Sustainability

Sunday, January 20, 2008, 5:00-7:00 pm

Sutton Center, 2nd floor

Hilton New York

New York, New York

Minutes

-
- | | |
|---|-----------|
| 1. Roll call and Introductions | Heneghan |
| 7 voting members at start of meeting – 9 within 20 minutes of start of meeting | |
| 2. Accept agenda/approve minutes of Long Beach meetings | Crawley |
| Tom C | |
| 2 nd Grumman -- unanimous | |
| 3. Announcements/Membership | Crawley |
| 4. Standing Committee Liaisons TAC/RAC/StdCom/Program/SpecPub/ALI | Crawley |
| Chuck Wilkin attended our meeting. The TC website needs to be updated to include minutes, members and information on our TC. The TC is doing excellent work and the GreenGuide session was in the top 5 at Long Beach (June 2007) | |
| No other Liaisons present | |
| 5. Subcommittee Reports | |
| 5.1 Systems and Environment Tom Cappellin | |
| 5.1.1 T C 1.8 4.4 interactions Tom ave an update – see additional minutes attached | Cappellin |
| 5.1.2 Tom is sending minutes | |
| 5.1.3 RTAR “Development of an ASHRAE Green Materials Database for Thermal Insulation Materials” | |
| 5.2 Interactions with the Environment | |
| 5.2.1 Deru gave a report | |
| 5.2.2 Delivering low impact buildings | Deru |
| 5.2.3 ACTION – Frank will send links from UK work | |
| 5.2.4 Program possibility from Tom L | |
| 5.3 Handbook | |
| 5.3.1 Minutes attached | |
| 5.3.2 Chapter attached – next iteration goes out Feb 5 th | |
| 5.3.3 March 15 th is cut-off | Turner |
| 5.3.4 Early April – final push | |
| 5.3.5 May 15 th to Dru; | |
| 5.3.6 TC need to approveChapter | |
| 5.4 Green Guide | |
| 5.4.1 E-learning course being developed for GG | |
| 5.4.2 3 rd edition – target for Greenbuild 2009 | Swift |
| 5.4.3 E-mail to TCs | |
| 5.4.4 John will take care of that...action items | |
| 5.4.5 Jay E. suggested that we put the V3 Outline on website | |

5.4.6		
5.5 Research		
5.5.1	Report attached	Torcellini
5.5.2	RTAR - rejected	
5.6 Program		
5.6.1	Program Notes attached	
5.6.2	Salt Lake program submittal deadline Feb. 8 th	
	<ul style="list-style-type: none"> • How Low #6 – transactions • LCA of building materials – Seminar • Simulation of measured data – Seminar • Business model – GHG; Tom Lawrence • Co-sponsor – Standard of Care • Janice moved; Tom L second • Unanimous 	Altwies
5.6.3	Chicago – paper deadline April 4 th	
	<ul style="list-style-type: none"> • How Low #7 -- Transactions • Impact of Cx on greenhouse gas – Transactions • Natural Ventilation • Water conservation • Seminar – Standard 189 • Risk Management 	
5.7 Standards		Enck
	<ul style="list-style-type: none"> • SPC 189P Standard for the Design of High-Performance Green Buildings except Low-Rise Residential Buildings <ul style="list-style-type: none"> ▪ 964 comments – going out for second public comment March 1 ▪ Changed title to include Operations ▪ User guide ▪ • SPC 191P Standard for the Efficient Use of Water in Building, Site and Mechanical Systems TITLE CHANGE <ul style="list-style-type: none"> ▪ Not official just yet ▪ Proposed RTAR 	Hogan
		Swift
5.8 Web Site		
5.8.1	Just updated before the meetings	
5.8.2	Include committee members and status	
5.8.3	Action – sent out a request for information	Brundage
	<ul style="list-style-type: none"> • List RTARs in progress • 	
5.9 Greening ASHRAE Meetings and Expositions Working Group [GAME]		
	<ul style="list-style-type: none"> • No meeting in NYC • MOVE TO related reports below May be removed at next meeting • 	Hayter
6. Related Activities Reports		
6.1 LEED (USGBC-ASHRAE Interaction/LEED Home Liaison)		
6.1.1	Mike Opitz gave an update on V3	Owens/Enck/Altwies
6.1.2	Portfolio process – volume certification	
6.1.3	LEED ND in pilot (Frank Mills)	
6.2 ASHRAE 30% Energy Design Guide (SO/SR/K-12/W/L/H)		
6.2.1	Downloadable files	Brundage/Hogan
6.2.2	12,000 free copies to all the schools	
6.2.3	New tis year Roadside lodging and Hospitals	
6.3 Interagency Sustainability Working Group		
6.3.1	Very little activity – Agencies are working on meeting the requirements of EPACK 2005	Crawley

- 6.4 Green Globes, Green Building Institute
 - 6.4.1 Harvey reported tool is in public domain
<http://www.thegbi.org/commercial/>
 - 6.4.2 Trusty chair head Coad
 - 6.4.3 Low threshold
 - 6.4.4 Sustainable building conference – dual certified buildings between LEED and Green Globes
- 6.5 SP – Carbon Emissions Calculation Tool Hal Levin was not present, Paul T gave an update
 - 6.5.1 Building performance metrics Levin
 - 6.5.2 Carbon metric – what is needed to get a handle on the metric
 - 6.5.3 Tool being developed --
- 6.6 SP -- Protocols for Measuring and Reporting the On-site Performance of Buildings Except Low-Rise Residential Buildings – Jeff not there Haberl
 - 6.6.1
 - 6.6.2 RFP going out on the street
- 6.7 ASHRAE Headquarters Renovation Enck
 - 6.7.1 HDQTRS gutted – PV going in
 - 6.7.2 Progressing
 - 6.7.3 Energy efficiency
 - 6.7.4 Data collection visible on website
 - 6.7.5 June/july
 - 6.7.6 On time; on schedule
- 6.8 ASHRAE Climate Change Position Brundage/Lawrence
 - 6.8.1 One off committee – write a position paper
- 6.9 Energy Independence and Security Act of 2007 (EISAct 2007)
 - 6.9.1 Full text: [Energy Independence and Security Act of 2007](http://www1.eere.energy.gov/femp/news/news_detail.html?news_id=11683)
frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h6enr.txt.pdf Crawley
 - 6.9.2 EUI targets on website
http://www1.eere.energy.gov/femp/news/news_detail.html?news_id=11683
 - 6.9.3 Retailer Energy Alliance forming
<http://www1.eere.energy.gov/buildings/retailer/about.html>
 - 6.9.4 Office and lease space in the next couple of years

7. Old Business

8. New business

- 8.1 Questions – Where is ASHRAE in support of Architecture 2030
 - 8.1.1 Belief that ASHRAE is supporting and that 90.1 will reflect that by 2020
- 8.2 High Performance Buildings magazine – Any articles are appreciated

9. Adjourn

Motion Tom L and 2nd Tom C

6:45 PM

NEXT MEETING: Sunday, June 22, 2008, Salt Lake City

TC 2.8 Web Site

<http://gard.com/tc28/>

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.cgi/tc28-l-onebuilding.org>

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

tc28-l@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!

TC 2.8 “Systems and Environment.” Subcommittee Minutes

ASHRAE Winter Meeting – New York, NY – January 20, 2008

Attendees: Thomas E. Cappellin, Chair; David Grumman; Tom Lawrence; Luke Leung; Michael Deru; Jan Kosny; John Lane; Paul Bertram; George Phelps; Erv Bales

- A. Meeting was called to order and introductions of Attendees were made.
- B. Items discussed were:
 - 1. Jan Kosny’s draft copy of his RTAR “Development of an ASHRAE Green Materials Database for Thermal Insulation Materials” was discussed and various comments were made to revise content.
 - a. RTAR needs to address insulation characteristics not adequately covered in ASHRAE’s “Fundamentals” handbook.
 - b. RTAR scope should not be too broad.
 - c. RTAR scope needs to be reviewed by TC 1.8 and TC 4.4 for added input that they consider critical to the research effort and findings. This committee will contact these TCs and make them aware of this RTAR’s content.
 - d. Life Cycle Analysis may need to be removed from scope as it can be addressed by other links.
 - e. The ATHENA EcoCalculator for Assemblies may be appropriate for inclusion in the RTAR.
 - f. RTAR wording needs to be carefully worded to avoid adding to the current “Insulation Wars” that plague the insulation industry.
 - 2. Additional comments were given, via notes, by David Grumman:
 - a. What specific data might be developed (examples) for:
 - 1) Energy required for manufacture process.
 - 2) Carbon Emission impact of Manufacturer.
 - 3) Impact of disposal during demolition (cradle-to-grave).
 - 4) 1 EQ /1AQ impact when in use and when in landfill.
 - 3. Jan will rework his RTAR to address the above comments.
 - 4. Future program topics were offered for consideration”
 - a. Life Cycle Analysis of Materials and how it is addressed by USGBC, ASHRAE Standard 189, Environmental Grantmakers Association (EGA) and Environment-Friendly products having an “Eco-Label” tag.
 - 5. There was a short general discussion and then adjournment of the meeting.

TC 2.8 HANDBOOK SUBCOMMITTEE NY JANUARY 20, 2008

Stephen Turner, Erv Bales, Dave Grumman, Janis Means, Don Brundage, Tom Lawrence, Thomas Kelly, Michael Deru, Paul Torcellini

Add Paul Torcellini, Michael Deru, and Thomas Kelly to Handbook SubC distribution list

Handbook Liaison

Pradeep Bansaal

Chapter 17 Energy Resources

March 8 requested, but not practicable

New Sustainability Chapter

July 31 deadline for final approved version to Staff for publication

Don emailed Pradeep an explanation of need for chapters to travel together since cross-references and changes may require later changes in existing chapter.

Salt Lake City: TC to approve final versions of both Chapters

Pradeep confirmed commitment to give us 3 weeks to review galley proofs

Working Session

Version of new Chapter was overhauled in group working session. See separate file.

Work Plan

February 5 SCT to transmit post-NY version; Don to do same with cuts shown

March 15 Deadline for new content & edits, graphics & references to SCT

April 4 Protect the day

April 15 SCT to transmit Final Draft to Handbook SubC; Don to do same

April 30 deadline for comments back to SCT; same for Don

Agreed May 15 drop dead to transmit the Final version to the TC; Don to do same

June 22 TC Approves both Chapters

**ASHRAE NYC Winter Meeting
January 20, 2008
4 PM to 5 PM**

Attendees:

John Swift	Cannon Design	jswift@cannondesign.com
Tom Lawrence	UGA	lawrence@engr.uga.edu
Dunstan Macauley	Greenman-Pedersen, Inc.	dmacauley@gpinet.com
Dave Grumman	Grumman/Butkus Assoc	dlg@grummanbutkus.com
Paul Torcellini	NREL	paul.torcellini@nrel.gov
Michael Deru	NREL	michael_deru@nrel.gov
Erv Bales	NJ Inst Tech	bales@njit.edu
Chris Baker	The Weidt Group	chrisb@twgi.com
Brian Lynch	BAF	blynch@bigassfans.com
Grahame Maisey	BSC	grahame@bsc-worldwide.com
Michel Tardif	CTEC-Ottawa	mtardif@nlcan.gc.ca
Mini Malhotra	Energy Systems Lab, Texas A&M	minimalhotra@tees.tamus.edu
Katherine Hammack	Ernst & Young	katherine.hammack@ey.com
Janice K. Means	Lawrence Technological University	means@ltu.edu
Daryn Cline	Evapco, Inc.	dcline@evapco.com
Stephen Turner	CTG	sturner@ctg-net.com
Thomas J. Kelly	Carrier Corp.	Thomas.j.kelly@carrier.utc.com

The following is a summary of discussions at the meeting based on meeting notes taken by John Swift. Please contact John Swift at jswift@cannondesign.com with any suggested edits.

- 1) The target publishing date for the 3rd Edition of the Green Guide is Greenbuild 2009 (October 2009).
- 2) It was determined that the Senior Editorial Committee that worked on the 2nd Edition will continue on for the 3rd Edition.
- 3) JS to contact ASHRAE Publications staff to find out if there is a list of universities that are using the Green Guide as a text book.
- 4) The group that is putting together the exam for ASHRAE Sustainability Certifications wants to interact with the Green Guide editorial staff and make suggestions for GG3. The group will contact JS via e-mail.
- 5) The next edition is targeted to be available in searchable pdf format similar to how the ASHRAE standards are available now.
- 6) It was suggested that GG3 be printed on environmentally friendly paper (similar to Cradle to Cradle material?).
- 7) John Swift to work with ASHRAE to have formal announcement of the Green Guide, 3rd Edition development process. This will include:
 - a) Distribution message to all TC Chairs.
 - b) ASHRAE Insights Announcement
 - c) Comment form available on ASHRAE Website
 - d) E-mail announcement from ASHRAE “headquarters”
 - e) Others?
- 8) Content for the 3rd Edition was discussed.

- a) Architecture 2030 Challenge and the 2010 Imperative.
- b) Carbon Reduction
- c) Expand thermal comfort content
- d) Net Zero Energy buildings- content on drivers/ global warming, resources, etc.
- e) The impact of BIM.
- f) Guidance for other green rating systems beyond LEED
- g) Green Tips such as those on how to comply with ASHRAE Standards 90.1-2004 and 62.1-2004.
- h) Vision 2020.
- i) More international perspectives
- j) Climate perspectives throughout? New chapter? Appendix?
- k) Extensive update of references including the Advanced Energy Design Guides, Standard 189, Standard 191, etc.
- l) Energy Masterplanning
- m) LCA
- n) POE/ M&V updated content
- o) It was suggested that future revisions could use the ASHRAE Survival Guide Series as a vehicle for revisions.
- p) Last minute “cast a net” over ASHRAE activities info. to be incorporated in Summer of 2009.

Current Research Summary for TC2.8

Title	TC Priority	Status	TC Status	
Development of an ASHRAE Green Materials Database for Thermal Insulation Materials		RTAR not completed	2 nd draft discussed (1/20/08 revision) at subcommittee: Systems and Environment in New York (Tom Cappellin)	Jan Kosney to complete RTAR with interactions with other TC's
Other ideas presented by Systems and Environment		RTAR's to be developed	Systems and Environment in New York	
Action from Hal's Standing Committee/Emissions Calculations—need RTAR--				
Building Performance Metrics possibilities				
Research required to produce information for an ASHRAE GreenGuide for Refrigeration			Feed into a Special Project	
Water/Energy Balance metric development that would be used in SPC191			RTAR to be developed by SPC191 members for TC use	
Old				
Development of a Matrix and Computation Methods for Assistance in Computing Net Cost Savings for the Implementation of Sustainable Building Components				Dead 6/07
LEED credit vs. ASHRAE 62				Dead 6/07
Thermal performance of the building envelope (Façade Engineering for Thermal Performance With TC 4.5 (we would be a co-sponsor)				4.5 will lead a fenestration based thermal performance and bring to us for Co-Sponsor
Protocol for Environmental Evaluation of Meetings			E-mail draft before Long Beach. Tom Lawrence to update. Approved 6/24/07 unanimously by TC	Rejected by RAC 10/07

Next critical deadline is mid-February 2008 for submittals of RTAR's.

Need to have RTAR's reviewed by RAC liaison—I can facilitate this process.

Liaison needs at least 2 weeks for review.

Linking to the Strategic Plan: “Lead the advancement of sustainable Building Design and Operations.”

We have the opportunity to fill gaps that are directly in ASHRAE missions—Identify the needs.

Submit RTAR's three times a year (roughly 6 weeks before any RAC meeting)

Review status of RTAR's

- need to check that they use some of the “words” from the Strategic Research Plan.” Available on the ASHRAE web site.
- Instructions for RTAR's are on the ASHRAE web site.
- Highly encouraged to show few authors on each RTAR. (minimize possibilities of conflict of interest)

Subcommittees should develop the RTAR's and present them to the full TC:

Interactions with the Environment / Michael Deru

Systems and Environment / Tom Cappellin)