

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND**

**AIR-CONDITIONING ENGINEERS, INC.**

**1791 Tullie Circle, NE, Atlanta, GA**

**404-636-8400**

**Technical Committee 4.4**

**Building Materials and Building Envelope Performance**

**Minutes**

**Monday, January 20, 2014**

**New York, New York**

***These minutes were approved and by the Committee at the Seattle 2014 Annual Conference***

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.**

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**TC/TG/TRG MINUTES COVER SHEET**

(Minutes of all TC/TG/TRG Meetings are to be distributed to the individuals listed below within 60 days following the meeting.)

**TC/TG/SSPC: TC 4.4**  
**TC Title: Building Materials and Building Envelope Performance**  
**Date of Meeting: Monday, January 20, 2014. Meeting convened at 2:15 pm.**  
**Location: Concourse B Hilton, Concourse Level, New York, New York**

**DISTRIBUTION**

All members of TC 4.4 plus the following:

TAC Chair

Committee Liaisons

**ADDITIONAL DISTRIBUTION**

Manager of Standards

Manager of Technical Services and Research

## ASHRAE TC 4.4 MINUTES

Monday, January 20, 2014 – New York City

### Building Materials and Building Envelope Performance

#### 1. Introductions/Roll Call/Attendance

The Chair, Marcus Bianchi, called the meeting to order at 2:15pm. Roll call and introductions. A total of 47 committee members and guests were present. A quorum was present (10/12). Attendance is shown below.

#### Voting Members and Officers Present:

<u>Name</u>	<u>Affiliation</u>	<u>Role</u>	<u>Notes</u>
Marcus V Bianchi	Owens Corning	Chair	
Peter J Adams	Morrison Hershfield Ltd	Vice Chair	
Steven M. Cornick	National Research Council Canada	Secretary/Webmaster	
Samuel Glass	USDA Forest Products Laboratory	Research Chair	
Paul H Shipp	USG Corporation	Handbook Chair	
Sean M O'Brien	Simpson Gumpertz & Heger Inc	Program Chair	Corresponding Member
Fiona Aldous	WJE		
Charles C Cottrell	NAIMA		
Stanley D Gatland, II	CertainTeed Corporation		
Alexander G McGowan	Levelton Consultants Ltd		
Carsten Rode	Technical University of Denmark		Non quorum

Number of voting members present: 10 (1 non-quorum)

#### Voting Members and Officers Absent

<u>Name</u>	<u>Affiliation</u>	<u>Role</u>	<u>Notes</u>
Mr Larry Elkin	Law Engineering	ALI Coordinator	Corresponding Member
Theresa A Weston	Dupont	Standards Chair	Corresponding Member
Hollace S Bailey	Bailey Engineering Corporation		
Laverne E Dagleish	Air Barrier Assoc. Of America Inc.		
Diana Fisler	Johns Manville		
Andreas H. Holm	Fraunhofer IBP		Non quorum

## Corresponding Members Present

<u>Name</u>	<u>Affiliation</u>
Wagdy A Y Anis	Wiss, Janney, Elstner, Associates, Inc.
Michael D Blanford	U.S Dept. Of Housing & Urban Development
Andre O Desjarlais	Oak Ridge National Lab
George H Dubose	Liberty Building
Hugo SLC Hens	BPh Consult bvba
Roderick Jackson	Oak Ridge National Laboratory
Hartwig M Kuenzel	Fraunhofer IBP
Wei Lam	
Patrick M Noonan	Knauf Insulation
Richard E Peters	TBS Engineering
Mikael H Salonvaara	Owens Corning
Fitsum Tariku	BCIT
Raoul A Webb	ENVIRON International Corporation
Ayman Youssef	ARAMCO

## Visitors Present

<u>Name</u>	<u>Affiliation</u>
Colin Beattie	Concordia University
Mike Calkins	Widener University
David Cantrill	CxGBS
John Davis	University of Wisconsin
Ali Fallani	Fraunhofer CSE
Xia Fang	Group14 Eng.
Anthony Fontanini	Fraunhofer CSE
Moshen Foroughi	Penn State
Diane Griffiths	Steve Winter Assoc.
Amanda Hickman	Intercode Inc.
Ahmad Kayello	Concordia University
Manfred Kehrer	ORNL
Vladimir Kochkin	Home Innovation
Christine Lee	Arup
Siwei Li	Purdue University
Mike Moore	Newport VSI
Alejandro Neito	Roxul
Charlie Petty	Lamtec Corp
John Putnam	EDDI
Nitin Shukla	Fraunhofer CSE
Brian Sybesma	Southland Industries
Sam Yuan	Certainteed

## 2. Review of Agenda/Approval of June 24, 2013 Denver Minutes

There were no changes to the agenda (attached).

The draft minutes from the June 24, 2013 meeting in Denver were posted on the TC Google Site and ASHRAE site for review. Peter Adams made note of a few minor editorial changes and one substantive change and will submit a revised version of the minutes. Paul Shipp moved to approve the Denver minutes subject to the revisions. Peter Adams seconded.

**VOTE: For 7, Against 0, Abstaining 1, CNV; MOTION CARRIES**

### **3. Report From the Chair/Membership/Roll-on, Roll-off**

Report was presented by Chair, Marcus Bianchi

#### **ANNOUNCEMENTS:**

**2013-2014 Hightower Award Recipient – G.D. Mathur, TC 5.5 & TC 5.7** G.D. Mathur has provided technical leadership to TC 5.5 (Air-to-Air Energy Recovery) and TC 5.7 (Evaporative Cooling) for more than twenty years in a variety of positions

TAC has developed a new award, the Outstanding Technical Committee Award. The purpose of the award is to recognize, annually, a single Technical Committee within each TAC Section that has the highest measured performance based on a set of weighted criteria as compared to other TCs within that same Section.

**YEA/TC Hospitality Sunday Afternoon in New York: Young Engineers of ASHRAE (YEA) / TC Hospitality** at the New York meeting on Sunday, 1/19, from 4 p.m. to 7 p.m. in the Petit Trianon room on the 3rd floor of the New York Hilton Midtown Hotel.

**ASHRAExCHANGE:** Check out ASHRAE's new online forum/discussion board service and connect with other professionals in the built environment community on a variety of current discussion topics. <https://www.ashraexchange.org>.

**Please update your bio:** Employment Discipline added to ASHRAE BIO Online Input Form A new input field titled Employment Discipline has been added to the ASHRAE online member (BIO)graphical input form and TAC would like all TC members to self-declare their employment discipline prior to the Winter meeting in New York by going to the Members Only section (<https://eweb.ashrae.org/eweb/DynamicPage.aspx?Site=ASHRAE&WebKey=8396a37a-9fc2-4f50-9332-5eebebe73494>) and enter their employment discipline information.

**TC members are encouraged to volunteer with CEC to review technical papers for ASHRAE conferences:** Provide to your Section Head after each Society meeting a list of qualified volunteers from your TC that are potential Technical Session chairs and reviewers of session papers that are related to TC's scope for use by the Conferences & Expositions Committee (CEC) in developing technical content for future technical programs.

**The Building Envelope Commissioning Workshop** is to be held at the New York City meeting. The workshop summary is attached to the minutes.

**The Chairs have been asked to remind the TC's of the ASHRAE code of ethics at the beginning of each meeting.** The code of ethics is attached to the minutes.

The Chair reviewed some upcoming workshops and conferences:

1st International Conference on Energy and Indoor Environment for Hot Climates, February 24-26, 2014, Doha, Qatar. Contact: [www.ashrae.org/hotclimates](http://www.ashrae.org/hotclimates)

49th AiCARR International Conference of 2014, February 26-28, 2014, Rome, Italy. Contact: <https://www.ashrae.org/membership--conferences/conferences/ashrae-endorsed-events/2014/49th-edition-of-aicarr-international-conference-of-2014>

2014 International Sorption Heat Pump Conference (ISHPC2014), Mar. 31 – Apr. 3, 2014, College Park, MD, USA. Contact: <http://www.ceee.umd.edu/events/ISHPC2014/>

The Section 4 Head, Michael Biderbeck, was present. It was suggested to him that in future the main TC meeting would require a larger room (note 47 attendees!).

The Chair noted that the TC Google Site is private to TC members and not publically searchable. Posting to the Google Group and on the Google Site is moderated.

#### MEMBERSHIP:

The Chair noted that ad hoc attendance is not enough to become a Corresponding Member (CM). To become a CM one needs to be proactive: both contact the TC chair AND submit a request to ASHRAE. The position of Provisional Corresponding Member was created to temporarily put people on the roster in between the roster update cycle. ASHRAE generally requires a person to be a CM for 1-year before becoming Voting Member (VM).

#### ROLL-ON/ROLL-OFF

Rolling off as VM's after the June meeting in Seattle (July 2nd, 2014).

Stan Gatland  
Steve Cornick  
Peter Adams  
Holly Bailey

The chair is planning to add the following VM's after the June meeting in Seattle (July 2nd, 2014).

Manfred Kehrer  
Richard Peters  
Patrick Noonan  
Fitsum Tariku

## 4. Research Subcommittee

Update was presented by Research Subcommittee Chair, Sam Glass

**The Current Section 4 Research Liaison is XuDong Yang from Tsinghua University.**

There is a new RTAR form, a pdf. Brevity and clarity are stressed; the form has word limits and radio buttons. Please use it. <https://www.ashrae.org/standards-research--technology/research>

**Status updates:**

***1561-RP Procedures to Adjust Observed Climatic Data for Regional or Microclimatic Variations:*** (TC 4.2 lead, TC 4.4 co-sponsor). PMS meeting was held on Sunday Jan. 19th with contractor attending via tele-presence. The project is on mostly track but will most likely require a six month no cost extension; there will probably be a draft report for the Seattle meeting in June 2014. Hartwig Künzel is the liaison.

***1696-WS Thermal, Moisture and Air Transport Property Values for New Building and Insulating Materials;*** Alex McGowan and Steve Cornick. Draft work statement version 2 is on the TC Google Site. Members were asked to provide comments, particularly with regard to materials to include.

**Action items:**

- I. All; Provide comments to Alex McGowan by Jan. 31, 2014.
- II. McGowan & Cornick; Revise and letter ballot by Feb. 14, 2014. If accepted, submit to RAC by Feb. 15, 2014.

***1700-WS A Global Database of Moisture Design Reference Years for Hygrothermal Analysis and Design of Buildings*** (TC 4.2 lead, TC 4.4 co-sponsor); Steve Cornick. RTAR was accepted by RAC Work statement developed addressing RACs comments on the TC Google Site. Research subcommittee discussed 2014-1-19 and recommended to cosponsor. Andre Desjarlais and Hartwig Künzel volunteered to represent TC 4.4 on PES/PMS if WS accepted.

Motion made by Sam Glass, Research Subcommittee Chair, to co-sponsor 1700-WS.

**VOTE:** For 9, Against 0, Abstaining 0, CNV; MOTION CARRIES.

***1670-RTAR Research to Determine Energy and Moisture Impacts of Attic Ventilation;*** Dave Roodvoets and Mika Salonvarra. A letter ballot was circulated in August 2013. The revised RTAR did not get TC approval. The main reason was that the RTAR depended on the successful conclusions of another research project (“Research to Determine the Pressure Coefficients and Pressure Drop for Standard Venting Strategies and Components in Residential Attic Spaces,” see below) and therefore the risk of not completing the project was high. The RTAR is to be considered inactive for the moment. The results of the vote were:

**VOTE (letter ballot):** 2 for, 5 against, 0 abstain, 6 absent; MOTION FAILED.

***1718-RTAR Development of a Method to Determine the Moisture Transport Properties of a Roof Shingle System under Real Conditions;*** Manfred Kehrner. RTAR was returned by RAC with comments, specifically two comments: 1) the method needs to be clarified, i.e., address more

details with respect to the combination of lab work, modelling, and test measurements on a real building; 2) address the issue of co-funding from housing association(s). Note that individual material manufacturer's will not likely co-fund because the RTAR addresses systems not materials. The RTAR clearly aligns with ASHRAE strategic plan; e.g. energy improvement and related moisture problems. SSPC 160 voted unanimously to co-sponsor as well as TC 1.12. Sam Glass, Research Subcommittee Chair, moved to approve RTAR as amended to be sent to RAC.

**VOTE: For 9, Against 0, Abstaining 0, CNV; MOTION CARRIES.**

***New RTAR Research to Determine the Pressure Coefficients and Pressure Drop for Standard Venting Strategies and Components in Residential Attic Spaces; Anthony Fontanini and Dave Roodvoets.*** A letter ballot was circulated in August 2013. The revised RTAR was approved by the TC. The one negative voter suggested that the RTAR was vague and incomplete and needed more detail. The RTAR was intended to be the precursor to 1670-RTAR. The RTAR was discussed at the research subcommittee meeting. Comments were to be sent to authors and a revised version submitted to RAC by Feb. 15<sup>th</sup>, 2014. The results of the vote were:

**VOTE (letter ballot): 6 for, 1 against, 0 abstain, 6 absent; MOTION CARRIED.**

**Action items:**

- I. All; submit comments to authors ASAP
- II. Fontanini & Roodvoets; revised and submit RTAR to RL for Feb 15th deadline
- III. Fontanini & Roodvoets; seek co-sponsorship from TCs 4.3 and 4.7

**Draft RTAR *Hygrothermal Properties of Aged Construction Materials*; (Steve Cornick).** Revised based on input from Andre Desjarlais and posted on Google site prior to NY meeting. Research subcommittee discussed 2014-1-19.

**Action item: TC members provide comments to Steve Cornick by Mar. 1, 2014.**

**Draft RTAR *Performance of Vapor Retarder Systems Used on Mechanical Insulation* (TC 1.8 sponsor); Charles Petty.** Research subcommittee discussed 2014-1-19 and recommended to cosponsor. Andre Desjarlais volunteered to represent TC 4.4 on PES/PMS if RTAR/WS accepted.

**Sam Glass, Research Subcommittee Chair, moved to co-sponsor the draft RTAR**

**VOTE: For 9, Against 0, Abstaining 0, CNV; MOTION CARRIES.**

**Action item:**

- I. Glass; Communicate to TC 1.8 the result of the TC vote

**Draft RTAR *Evaluating the Accuracy of Whole Building Energy Simulations by Comparison with Field Measurement Data*; (Sean O'Brien).** Research subcommittee discussed 2014-1-19. Will be revised and posted on Google site for comments. Also seeking input from TC 4.7.

**Action items:**

- I. Sean O'Brien; Revise and post on Google site;
- II. All; Members provide comments by Mar. 1, 2014.

Draft RTAR *Moisture Transfer in Building Materials at High Temperatures*; (Sam Glass). Posted on Google site 2014-1-7. Distributed at research subcommittee and discussed 2014-1-19. Comments requested.

**Action item:**

- I. All: Members provide comments to Sam Glass by Mar. 1, 2014.

Draft RTAR *Impact of Air-Flow on Thermal Performance of Airspaces behind Cladding*; (Drafted by SSPC 90.1 envelope subcommittee). SSPC 90.1 approached TC 4.4 with request for TC 4.4 to sponsor the RTAR and SSPC 90.1 to cosponsor. Brief presentation at research subcommittee 2014-1-19 by Jonathan Humble, Jay Crandell, and David Yarbrough. Draft RTAR posted on TC Google site. Volunteers for task group to develop RTAR: Manfred Kehrer, Theresa Weston, Marcus Bianchi, Jay Crandell.

**Action item:**

- I. Kehrer, Weston, Bianchi, and Crandell; task group review draft RTAR and revise.

**Announcement:** Plans for new IEA ECB Annex, Whole Building Energy and Environmental Performance. Carsten Rode gave a brief presentation to the research subcommittee 2014-1-19. A two-page synopsis of project proposal was posted on TC Google Site. Any interested members to meet Jan. 21, 2014 at 10:00 am. (Tues) in front of ASHRAE registration.

A summary of the research activity is appended to the minutes.

## **5. Handbook Subcommittee**

Update was presented by Handbook Subcommittee Chair, Paul Shipp

Bass Abushakra, the Handbook – Fundamentals liaison (HL) was present. He reminded the members to check the Handbook Central page on the ASHRAE website for information on revising handbook chapters.

<https://www.ashrae.org/resources--publications/ashrae-handbook-central>

The HL outlined the schedule for the revision of the TC's Fundamentals 2013 Chapters 25, 26, and 27. The committee needs to select revisers; reviews. By February 2015 the chapter revisions should be done and sent to the HL. April 15; 2017 is the drop dead date for the chapters to be ready for the 2017 Handbook – Fundamentals. Milestones are on the web; check "Handbook Chapter Status Targets by Volume/TC" at Handbook Central.

The TC is responsible for 4 handbook chapters, Chapters 25, 26, and 27 of the Handbook – Fundamentals, and Ch. 44 of the Handbook – Applications. The next chapter to be published is Ch. 44 and will be published in the 2015 volume of the Handbook –Applications. Members are encouraged to monitor the TC Google Site for the next revision to be posted shortly. Comments by March 31st. to Peter Adams. The intent is to vote the chapter out June 31st, 2014 in Seattle.

Action item:

- I. All: Members provide comments on Ch. 44 HOA to Peter Adams by Mar. 31, 2014.

The Handbook – Fundamentals is to be revised in 2017. The names of chapter revisers are:

- Chapter 25. – Marcus Bianchi
- Chapter 26. – Alex McGowan
- Chapter 27 –Charles Cottrell Chapter 44 – Peter J. Adams

Proposal to update Table 3 in Chapter deferred until the Seattle meeting.

Action item:

- I. Cornick: Prepare a proposal to update Chapter 26 Table 3 Apr. 30, 2014.

There was discussion on the change to Chapter 26. Table 1, proposed Michael Moore from Newport Ventures. The proposal was to add insulated vinyl siding – under the aluminum, steel or vinyl over sheathing category. Paul Ship, Handbook Subcommittee Chair moved to approve the change (below) to the current electronic version of the Handbook – Fundamentals with the addition of with footnotes to indicate the testing was done in a 15mph airstream with an additional clarification in the body of the chapter text to be added to the 2017 editions. There was further discussion regarding testing and vented/ventilation behind cavity.

*Aluminum, steel, or vinyl over sheathing*

*hollow-backed*

*insulating-board-backed*

*foil-backed*

*insulated vinyl siding.....3/4 to 1 1/4 in. ....2.0 to 2.7°*

*o. The dimension referenced is taken at the maximum siding profile thickness. The range of R-values and associated thicknesses represent values for products tested to ASTM D7793, which requires a 15 mph air stream to be applied perpendicular to the surface of the siding during testing.*

**VOTE: For 7, Against 0, Abstaining 1, CNV; MOTION CARRIES.**

**Action item:**

- I. **Shipp; Notify HL of the change to be made.**

## **6. Program Subcommittee**

Update was presented by Program Subcommittee Chair, Sean O'Brien

The committee has had a good record in the past of getting programs items into the conference. There were no TC sponsored program items in New York City this time out. The TC would like to focus on forums however it was mentioned that forums are low on the totem pole with respect to CEC priority items. Consequently the TC would like to focus on forums, seminars, and workshops and not so much on conference papers although technical papers will still be given preference. The TC goal is to submit 4 program items per meeting.

Sean O'Brien, program subcommittee chair, will post some program items to the TC Google Site. The idea is that this will be an idea generating forum. Sean is looking for volunteers to organize program items with some possible people for speakers. The deadline for submitting program items for Seattle is 13 Feb, 2013. CEC deadlines for Seattle and Chicago are below.

- **Seattle Meeting - June 28-July 2, 2014**
  - **2014**
    - **Conference Site Live: January 6, 2014**
    - **Web Site Opens for Seminar and Forum proposals – January 6, 2014**
    - **Final Conference Papers Submitted for Review – January 9, 2014**
    - **Seattle Seminar and Forum Session Proposals are due February 13, 2014**
    - **Technical Papers final review due February 25, 2014**
    - **All presentation files (PPT) due online – June 2, 2014**
    - **Conference Website: <http://www.ashrae.org/seattle/>**
- **Seattle Tracks:**
  - **Research Summit – emphasis on high performance buildings**
  - **Indoor Environment – Health Comfort Productivity**
  - **Ground Source Heat Pumps: State of the Art Design, Performance and Research**
  - **HVAC&R Systems and Equipment**
  - **HVAC&R Fundamentals and Applications**
  - **Standards Guidelines and Codes**
  - **Refrigeration**
- **Chicago Meeting - January 24-28, 2015**
  - **2014**
    - **March 24, 2014 – Conference Paper Abstracts Due**
    - **April 7, 2014– Conference Paper Abstract Accept/Reject Notifications**
    - **April 14, 2014– Technical Papers Dues**
    - **June 2, 2014– Website Opens for Seminar, Forum and Paper Proposals**

- July 7, 2014– Final Conference Papers Submitted for Review (Includes Bio, Learning Objectives and Methods of Assessment)
  - August 6, 2014– Conference Paper accept/reject notifications
  - August 11, 2014 – Seminar, Forum and Workshop Proposals Due
  - August 18, 2014 – Revised Conference Papers/Final Technical Papers Due
  - August 25, 2014 – Conference and Technical Paper Final Accept/Reject Notifications
  - September 8, 2014 – Seminar, Forum, Workshop Accept/Reject Notifications
  - Conference Website: <http://www.ashrae.org/chicago/>
- Chicago Tracks:
    - Systems and Equipment
    - Fundamentals and Applications
    - Industrial Facilities
    - Large Buildings: Mission Critical Facilities and Applications
    - Energy Efficiency
    - Life Safety
    - Design of Energy and Water efficient Systems
    - Hospital Design and Codes

## 7. Standards Subcommittee

Update was presented by Marcus Bianchi for the Standards Subcommittee Chair, Theresa Weston.

**Std.90.1:** Charles Cottrell reported that all of 90.1 were working to develop a work plan for the 2016 version. The SSPC is looking at the scalar factors, proxies for life cycle costing and payback, and looking for a 35% efficiency gain over of 2007 version (equates to about 7% over 90.1-2013) – moving towards near zero. Most of the the low hanging fruit has been “picked.” The envelope subcommittee discussion centered on window improvement, daylighting, model savings vs. real savings, installation quality, and U-values and thermal performance of metal buildings.

It was suggested that SSPC 90.1 envelope subcommittee requests be fed into the TC program and research and vice versa via formal liaisons. TC should have formal liaisons to relevant Stds. and Guidelines; i.e. 90.1, 90.2, 160, GPC 34P, 189.1. Chair will appoint liaisons; need volunteers, perhaps to report at the subcommittee level. Wadgy Anis will volunteer to work with Peter Adams and Morrison Hershfield to try to get the results of 1365-RP into 90.1.

**Std 160:** Work is progressing on updating the mold growth criteria and revising the wording on how to handle airflow. There was a question as to what codes or standards have referenced Std. 160. GSA P100 Guideline references Std 160. It was uncertain whether Std. 189.1 has referenced the standard. There was some interest in writing a practice guide.

## 8. Old Business

Nothing to report.

## 9. New Business

Nothing to report.

## 10. Adjournment

Paul Shipp moved to adjourn the meeting at 16:15

*Steve Cornick – Secretary, TC 4.4*

APPROVED

## Action items

From the New York City meeting, Jan. 20, 2014

Person	Item	Date
All	Aged Materials RTAR Provide comments to Alex McGowan	Jan. 31, 2014
McGowan & Cornick	Aged Materials RTASR; Revise and letter ballot by 14 Feb. submit to RAC by Feb. 15, 2014	Feb. 15, 2014
All	Pressure coefficients RTAR; submit comments to authors ASAP	ASAP
Fontanini & Roodvoets	Pressure coefficients RTAR; revised and submit RTAR to RL	Feb. 15, 2014
Fontanini & Roodvoets	Seek co-sponsorship from TCs 4.3 and 4.7	ASAP
Glass	Performance of Vapor Retarder Systems Communicate to TC 1.8 the result of the TC vote	Feb. 15, 2014
Sean O'Brien;	Evaluating the Accuracy of Whole Building Energy Simulations by Comparison with Field Measurement Data; Revise and post on Google site;	ASAP
All	Evaluating the Accuracy of Whole Building Energy Simulations by Comparison with Field Measurement Data; Provide comments	March 1, 2014
All	High temperature materials properties RTAR , Members provide comments to Sam Glass	March 1, 2014
Kehrer, Weston, Bianchi, and Crandell	Draft RTAR Impact of Air-Flow on Thermal Performance of Airspaces behind Cladding; task group review draft RTAR and revise.	March 31, 2014
Cornick	Prepare a proposal to update Chapter 26 Table 3	April 30, 2014.
Shipp	Change in Chapter 26. Table 1, proposed Michael Moore from Newport Ventures. Notify HL of the change to be made.	March 31, 2014

**ASHRAE Technical Committee 4.4**  
**Building Materials and Building Envelope Performance**

Main Committee Agenda

**Date:** Monday, January 20, 2014

**Time:** 2:15 pm – 4:15 pm

**Location:** Concourse B Hilton, Concourse Level  
New York Hilton  
New York, New York

1. Introductions/Roll call/Attendance.....	2:15
2. Agenda/Approval of minutes – Steve Cornick [cornicksm@gmail.com] .....	2:20
3. Report from the Chair.Membership/Roll-on roll-off – Marcus Bianchi [Marcus.V.Bianchi@owenscorning.com] .....	2:25
4. Research Subcommittee – Sam Glass [svglass@fs.fed.us] .....	2:35
5. Handbook Subcommittee – Paul Shipp [pshipp@usg.com] .....	2:50
6. Program Subcommittee – Sean O’Brien [smobrien@sgh.com] .....	3:35
7. Standards Subcommittee – Theresa Weston [theresa.a.weston@usa.dupont.com].....	3:45
8. Old business.....	4:05
9. New business .....	4:10
10. Adjournment .....	4:15

*(End)*

## Summary of Research Projects

ID	Title	Champion	Status
1561-RP (TC 4.2)	Procedures to Adjust Observed Climatic Data for Regional or Mesoscale Climatic Variations	Steve Cornick	Künzel TC 4.4 PMS rep; draft report expected by Seattle; 6-mo. no-cost extension possibly needed.
1670-RTAR	Research to Determine Energy and Moisture Impacts of Attic Ventilation	Dave Roodvoets, Mikael Salonvaara	Voted not to accept by letter ballot 2013-8-14.
1696-WS	Thermal, Moisture and Air Transport Property Values for New Building and Insulating Materials	Alex McGowan, Steve Cornick	Draft WS under revision. Intend to letter ballot and submit to RAC by 2014-2-15.
1700-WS (TC 4.2)	A Global Database of Moisture Design Reference Years for Hygrothermal Analysis and Design of Buildings	Steve Cornick	Voted to cosponsor 2014-1-20.
1718-RTAR	Development of a Method to Determine the Moisture Transport Properties of a Roof Shingle System under Real Conditions	Manfred Kehrler	Voted to accept revised RTAR 2014-1-20. Submit to RAC by 2014-2-15.
Draft RTAR	Research to Determine the Pressure Coefficients and Pressure Drop for Standard Venting Strategies and Components in Attic Spaces with Sloped Roofs	Anthony Fontanini, David Roodvoets	Voted to accept by letter ballot 2013-8-14. Seeking co-sponsorship from TC 4.3 and 4.7. Intend to submit to RAC by 2014-2-15.
Draft RTAR (TC 1.8)	Performance of Vapor Retarder Systems Used on Mechanical Insulation	Charles Petty	Voted to co-sponsor 2014-1-20.
Draft RTAR	Evaluating the Accuracy of Whole Building Energy Simulations by Comparison with Field Measurement Data	Sean O'Brien	Under revision.
Draft RTAR	Hygrothermal Properties of Aged Construction Materials	Steve Cornick	Under revision.
Draft RTAR	Moisture Transfer in Building Materials at High Temperatures	Sam Glass	Under revision.
Draft RTAR	Impact of Air-Flow on Thermal Performance of Airspaces Behind Cladding	Task group: Manfred Kehrler, Theresa Weston, Marcus Bianchi, Jay Crandell	Draft submitted by 90.1 envelope subcommittee; task group to revise.

## Professional Development Seminar: Building Enclosure Commissioning

### **Course Length: 6 hours**

*(Co-sponsored by Building Enclosure Commissioning Collaborative)*

This seminar introduces the Building Enclosure Commissioning (BECx) process by outlining key quality based activities that achieve a successful building enclosure. The seminar will include overviews on such design phase BECx activities as developing the Owner's Project Requirements, the BECx plan, and critical building science and architectural issues to address in the design review and specifications, and construction phase BECx activities such as construction observation and performance testing. The seminar will aid in understanding how BECx contributes towards commissioning goals and requirements and LEED.

### **Instructors:**

[Fiona Aldous, Member ASHRAE](#)

[Jay Enck, member ASHRAE, HBDP, CPMP, BEAP, LEED® AP](#)

[William Nash, P.E., Member ASHRAE](#)

APPROVED

## **ASHRAE Code of Ethics**

(Approved by ASHRAE Board of Directors January 31, 2007)

As members of ASHRAE, we pledge to act with honesty, fairness, courtesy, competence, integrity and respect for others in our conduct.

Efforts of the Society, its members, and its bodies shall be directed at all times to enhancing the public health, safety and welfare.

Members and organized bodies of the Society shall be good stewards of the world's resources including energy, natural, human and financial resources

Our products and services shall be offered only in areas where our competence and expertise can satisfy the public need.

We shall act with care and competence in all activities, using and developing up to date knowledge and skills.

We shall avoid real or perceived conflicts of interest whenever possible, and disclose them to affected parties when they do exist.

The confidentiality of business affairs, proprietary information, intellectual property, procedures, and restricted Society discussions and materials shall be respected.

Each member is expected and encouraged to be committed to the code of ethics of his or her own professional or trade association in their nation and area of work.

Activities crossing national and cultural boundaries shall respect the ethical codes of the seat of the principal activity.