



American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

MINUTES

BOARD OF DIRECTORS CONFERENCE CALL MEETING

July 27, 2009

Note: These draft minutes have not been approved and are not the official, approved record until approved by the Board of Directors.

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Board of Directors Conference Call Meeting
July 27, 2009

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Principal Motions
Board of Directors Conference Call Meeting
July 27, 2009

No – Pg.	Motion
1 - 2	that the ASHRAE / IFMA (International Facility Management Association) Memorandum of Understanding in <u>Attachment C</u> be approved.

* * * * *

Action Items

Board of Directors Meeting
July 27, 2009

<u>No – Pg.</u>	<u>Responsibility</u>	<u>Summary of Action</u>	<u>Status</u>
1 - 2	Littleton	Notify Ben Leppard of his selection as a member of the Savings and Investment Plan 401K Committee.	_____
2 - 3	Littleton	(Staff) Notify IFMA of Board approval of the ASHRAE / IFMA MOU.	_____
3 - 3	Holness	Request that council chairs reduce their councils' projected 2009-10 expenses by 3-5% of the budgeted amount.	_____

* * * * *



MINUTES

BOARD OF DIRECTORS CONFERENCE CALL MEETING

July 27, 2009

- MEMBERS PRESENT: Gordon V. R. Holness, President
 Lynn G. Bellenger, President-Elect
 Ronald E. Jarnagin, Treasurer
 William P. Bahnfleth, Vice President
 James R. Fields, Vice President
 Sheila J. Hayter, Vice President
 Thomas E. Watson, Vice President
- Joseph Furman, Region I DRC Alternate Constantinos A. Balaras, DAL
 Kevin W. Fallin, Region III DRC Michael J. Brandemuehl, DAL
 Ira G. Poston, Region IV DRC Richard M. Kelso, DAL
 Frederick W. Betz, Region V DRC David E. Knebel, DAL
 Tina Brueckner, Region VI DRC Alternate Wayne R. Reedy, DAL
 Patricia G. Kempf, Region VII DRC Karen C. Thrasher, DAL
 Kenneth M. Fulk, Region VIII DRC Samir R. Traboulsi, DAL
 Richard M. Rose, Region IX DRC Thomas E. Werkema, DAL
 Jack H. Zarour, Region X DRC
 Erich Binder, Region XI DRC
 Ross D. Montgomery, Region XII DRC
 Walid Chakroun, Region-at-Large DRC
- MEMBERS ABSENT: Spencer Morasch, Region I DRC
 Guy Perreault, Region II DRC
 Robert J. Linder, Region VI DRC
 Robert Hu, Region XIII DRC
 Timothy C. Dwyer, DAL
- GUESTS PRESENT: Steve Comstock
 Claire Ramspeck
 Bruce Hunn
 Doug Read
 Cindy Simmons
 Carolyn Kettering
- STAFF PRESENT: Jeff Littleton, Executive Vice President
 Gloria Cofer, Executive Assistant to Board of Directors
 Claire Neme, Administrative Assistant

CALL TO ORDER

President Gordon Holness called Board of Directors conference call meeting to order at 9:03 a.m. on Monday, July 27, 2009. Roll call confirmed attendance as listed above and a quorum was present.

REVIEW OF AGENDA

The following items of business were added to the agenda:

Dissolution of Admissions and Advancement Committee
ANSI/ASHRAE Standard 34-2007, BSR/ASHRAE Addendum w

EXECUTIVE SESSION

The Board of Directors met in executive session from 9:07 to 10:05 a.m. Ben A. Leppard was elected as a member of the ASHRAE Savings and Investment Program's 401K Committee for a three-year term (July 2009-June 2012).

AI 1

OTHER BUSINESS

ANSI/ASHRAE Standard 34-2007, BSR/ASHRAE Addendum w

Mr. Holness referred to a motion the Board passed during the June 24 meeting to approve immediate publication of ANSI/ASHRAE Standard 34-2007, BSR/ASHRAE Addendum w, and asked Mr. Watson, chair of Technology Council, to comment. Mr. Watson reported that a correction to the background for the motion was sent to the Board after the June meeting (see Attachment A). He emphasized that the motion and the addendum were correct as presented at the June meeting. Board members had no comments or questions.

Dissolution of Admissions and Advancement Committee

Ms. Bellenger reported that Members Council was planning to vote by letter ballot on a bylaw amendment to dissolve the Admissions and Advancement Committee and, if approved by the council, this motion would be presented to the Board at its October 23-24 meeting. She referred to the rule requiring that the Board be notified of major organizational changes 60 days prior to the meeting at which the changes would be considered and indicated that this submission (see Attachment B) constituted notice. As background she indicated that the workload of the committee had been significantly reduced by use of an electronic calculator for evaluating membership applications, and other tasks would be assumed by the Membership Promotion Committee.

Ms. Bellenger outlined a timeline of actions needed in order for the bylaw amendment to be submitted to the membership for vote in spring 2010. Additionally, she referred to subsequent changes to the Rules of the Board that would be needed (see Attachment B) after the membership's approval of the bylaw amendment.

ASHRAE / IFMA (International Facility Management Association) Memorandum of Understanding (Attachment C)

Mr. Holness reported that ExCom had discussed an ASHRAE / IFMA MOU in fall 2008 and it had subsequently been finalized and signed by IFMA and ASHRAE representatives. He requested that the Board consider approving the MOU at this time. It was moved by Mr. Jarnagin and seconded

- (1) that the ASHRAE / IFMA (International Facility Management Association) Memorandum of Understanding in Attachment C be approved.

MOTION 1 PASSED. (Unanimous voice vote)

Mr. Read will report this Board action to IFMA when he meets with their representatives later this week.

AI 2

Membership Delinquencies (Attachment D)

Mr. Littleton reported that the number of membership delinquencies reported as of June 30, 2009, (12,628) showed a significant increase over the number of delinquencies last year at the same time (3,588). He referred to his memo dated July 20 which presented an analysis of delinquents, changes that had recently been implemented in the renewal notification process, a recommended plan of action to address the number of delinquencies, and a recovery program (see Attachment D).

Mr. Littleton reviewed a process used by staff to calculate ASHRAE's financial exposure caused by the unusually high number of delinquencies and reported an "educated guess" that dues revenue will be lower than the 2009-2010 budget by \$300,000 to \$500,000. He added that the estimate included the impact of the aggressive membership retention and recruitment campaign outlined in his July 20 memo.

Mr. Holness reviewed the individual items in Mr. Littleton's list of ways to reduce or postpone expenses:

- Ask each council to reduce budgeted expenses by 3-5%.
- Move the target date of the commissioning webcast from spring 2010 to fall 2010.
- Implement a staff hiring freeze.
- Eliminate staff bonus program.
- Postpone establishing a Foundation Development office.
- Identify ways to reduce volunteer and staff travel costs.

Mr. Holness stated that he would send a request to council chairs to reduce their projected council expenses for the current Society year by 3-5% of the budgeted amount.

AI 3

For Board consideration Mr. Holness presented the issue of moving the target date for the commissioning webcast from spring 2010 to fall 2010. He indicated the Board's decision was needed at the present meeting because of approaching deadlines for commitments based on the spring 2010 date. It was moved by Mr. Binder and seconded

(2) that the commissioning webcast be postponed from spring 2010 to fall 2010.

In discussion of the present status of funding for the webcast, comments were offered regarding the need for funds in addition to those budgeted. Board members suggested cuts to other programs in order to fund the webcast, one of which was to change the percentage allocation of member dues to research.

MOTION 2 FAILED. (Vote: 9-12-1, chair not voting)

Mr. Holness stated that funding for the webcast would be included in Board discussion of 2009-10 expense reductions at the October Board meeting.

Regarding the list of items in the “Delinquents Recovery Program” (see [Attachment D](#)), members expressed opposition to items regarding a regional cash prize and giving complimentary copies of ASHRAE Pocket Guide.

Council Information Reports

Ms. Bellenger, chair of Members Council, highlighted the following items in the Members Council Information Report ([Attachment E](#)):

- The Chennai Chapter was chartered (fourth chapter in India).
- The Research Promotion Committee reached 99.6% of its 2008-09 goal by raising \$2,038,000. Also, 71% of RP chairs attended centralized training sessions.
- YEA is planning a fall leadership weekend in 2009-10 in addition to the usual spring weekend with a goal of transferring enthusiasm generated during the weekend to the coming year’s chapter activities.
- The Student Activities Committee will post rules for the 2011 Student Design Competition in January 2010 so that residents of the Southern Hemisphere will be able to participate.
- A new career services program titled *ASHRAEjobs.com* was launched in June 2009.
- In response to an inquiry by a Board member, an update was reported on regional contributions to assist YEA.

Mr. Watson, chair of Technology Council, highlighted the following items in the Technology Council Information Report ([Attachment F](#)):

- Status reports on Standards 90.1, 100, 189.1 were highlighted in section 1 of the report.
- RAC is considering recommending that an IIAR representative be appointed to the committee as a consultant for coordination of research activities.
- TAC is collaborating with the Conferences and Expositions Committee on common issues and has assisted in resolving the scheduling of an RAC forum in Orlando.
- A subcommittee of the Refrigeration Committee and TC 10.3 members coordinated a new chapter on CO₂ for the Refrigeration Handbook volume.
- IAQ 2010, *Airborne Infection Control – Ventilation, IAQ & Energy*, will take place November 10-12, 2010, in Kuala Lumpur, Malaysia.
- Reports of the council’s standing subcommittees are included in the written report.
- Details of Building Performance Metrics and Building Information Modeling steering committee activities reflect their continued in-depth work to address the subjects.

Mr. Watson also reported that ANSI/ASHRAE Standard 34-2007, BSR/ASHRAE Addendum w, which the Board approved on June 24, 2009, for immediate publication, had been appealed.

Mr. Fields, chair of the Publishing and Education Council, reported that a list of vendors had been selected to receive a request-for-proposals for the online ASHRAE Bookstore. (See [Attachment G](#) for Publishing and Education Council Information Report.)

NEXT MEETING

Mr. Holness announced the next Board meeting would be held on October 23-24, 2009, at ASHRAE headquarters in Atlanta. The meeting will begin at 8:00 a.m. on October 23 and end by 3:00 p.m. on October 24. He thanked Board members for their attendance and participation in the conference call meeting

ADJOURNMENT

The meeting was adjourned at 11:02 a.m.

A handwritten signature in black ink, appearing to read "J. Littleton", with a horizontal line extending to the right.

Jeff H. Littleton, Secretary

gfc/2009-07-28

Distribution: Board of Directors
Staff Directors

Cofer, Gloria

From: Cofer, Gloria
Sent: Tuesday, July 07, 2009 3:01 PM
To: Ashrae-Bod
Cc: Neme, Claire
Subject: [ashrae-bod] Addendum w to ANSI/ASHRAE Standard 34-2007
Attachments: 34w-2007 Publication Draft.doc

The following message is being sent to the ASHRAE Board of Directors on behalf of Tom Watson, Vice President and Technology Council chair:

Fellow BOD members,

At the Wednesday meeting of the ASHRAE BOD in Louisville, we voted to approve Addendum w to ANSI/ASHRAE Standard 34-2007. The motion was correctly worded and no further action is required. For your reference, the motion correctly read as follows:

It is recommended that BSR/ASHRAE Addendum w (changes toxicity classification) to ANSI/ASHRAE Standard 34-2007, Designation and Safety Classification of Refrigerants, be approved for immediate publication.

However, I would like to bring to your attention an error in the background to the motion. Addendum w assigned the safety classification of A2 to R-1234yf (Please see the attached Publication Draft of 34w-2007.) As you probably know the safety classification has two components, toxicity and flammability. The letter A in this case denotes the toxicity classification of "lower toxicity" and the number 2 denotes the flammability classification of "moderately flammable." The discussion at Project Committee level and the Standards Committee level was about the toxicity classification of A versus A-Provisional and the flammability classification was not an issue. The background to the BOD motion erroneously stated that the discussion was whether to change the classification from "A1 to A1-Provisional." The background should have stated from "A2 to A2-Provisional." To reiterate, Addendum 34w-2007 and the BOD motion are correct.

Regards - Tom

Thomas E. Watson, P.E., FASHRAE
Chair - Technology Council

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Gloria Cofer, Executive Assistant to BOD
American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
Direct Line: 678-539-1130 Fax: 678-539-2130 eMail: GCofer@ashrae.org Web: www.ASHRAE.org

Be **Green**, Save Time - Renew **And Join** ASHRAE Online - link to <http://www.ashrae.org/members/>

 Please consider the environment before printing this e-mail.

Publication Draft

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

This addendum adds new refrigerant 1234yf to Table 1 and Table D1.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum w to 34-2007

Add the following to Table 1 in the columns indicated:

TABLE 1, Refrigerant Data and Safety Classifications

Refrigerant Number = 1234yf

Chemical Name = 2,3,3,3-tetrafluoroprop-1-ene

Chemical Formula = CF₃CF=CH₂

OEL = 400

Safety Group = A2

RCL = 16,000 ppm v/v; 75 g/m³; 4.7 Mcf

Highly Toxic or Toxic Under Code Classification = Neither

Add the following to Table D1 in the columns indicated:

TABLE D1, Refrigerant Data

Refrigerant Number = 1234yf

Chemical Name = 2,3,3,3-tetrafluoroprop-1-ene

Chemical Formula = CF₃CF=CH₂

Molecular Mass = 114.0

Normal Boiling Point = -29.4 °C; -20.9 °F

Motion 1: Members Council recommends to the Board of Directors that section 7.6 of the bylaws regarding Admissions and Advancement Committee be stricken. (~~Section 7.6 Admissions and Advancement Committee. This standing committee of the Society shall be responsible for all applications for membership and advancement and recommend the names of all applicants and the grades for which it considers them eligible, except membership grades conferred as honors. The correspondence, information obtained, and proceedings of said committee shall be confidential.~~)

Background:

At the Annual Meeting in Louisville, the Electronic Membership Application Ad Hoc of Members Council recommended revised procedures for processing membership applications. The ad hoc included members of the A&A Committee, Membership Promotion Committee, Members Council and staff. Their charge was to investigate ways to evaluate qualifications electronically and review and approve applications for membership and advancements more quickly.

The recommended procedures include an automated assessment of qualifications for Member grade that would then be reviewed by staff. If the appropriate member grade is in question, staff will forward the application to a volunteer for review. Since the volunteer workload will be substantially reduced, it can be handled by the Dues and Applications Subcommittee of Membership Promotion, and the Admissions and Advancement Committee can be eliminated. The current Rules of the Board authorize 10 voting members, although only 5 were appointed for 2009-10.

To support staff approval of applications, improvements have been made to the new Member application to better acquire education, license and qualifying work experience for all members through an electronic calculator built into the system. This information is collected as a new member goes through the online membership application. New members who apply on paper are asked the same week they join to logon and update their ASHRAE bio, so they too will have the information needed. For advancements, ASHRAE now only accepts an updated member bio for the upgrade from Associate to Member.

These changes are global and include accepting a professional engineering license from any country where ASHRAE has a chapter and equal points for an accredited engineering program in any country where ASHRAE has a chapter.

Fiscal Impact: Savings of approximately \$1,400 would result from reduced transportation costs to Annual Meeting for the committee chair and from eliminating monthly luncheon meetings for the committee.

Motion 2: That, contingent on the membership voting to delete Bylaw Section 7.6 during the spring 2010 membership ballot, the ASHRAE Admission and Advancement Committee be disbanded effective June 30, 2010 (removing ROB 2.401) and the responsibility for admitting and advancing members be added to the scope of the Membership Promotion Committee effective July 1, 2010, as shown below in revised ROB 2.414.

ADMISSIONS and ADVANCEMENT COMMITTEE

(520-111)

2.401.001 SCOPE AND PURPOSE

~~This committee is responsible for all applications for membership and advancement and recommends the names of all applicants and the grades for which it considers them eligible, except membership grades conferred as honors. (SBL 7.6)~~

2.401.002 MEMBERSHIP

2.401.002.1 Composition

~~The members of this committee are as follows~~

- ~~• Ten (10) voting members including the chairman and vice-chairman~~
- ~~• Board ex-officio and coordinating officer~~

2.401.002.2 Qualifications

Members should live in the same geographical area, to reduce travel time and expense (meeting held every 4 to 6 weeks).

Members should actually be working or have worked in the professions represented by the Society.

Members should have been members of the Society for 8 to 10 years.

2.401.002.3 Term of Service

The normal 3-year term shall not be considered a limitation in the case of the members of the A&A Committee.

2.401.003 OPERATION

2.401.003.1 General

The correspondence, information obtained, and proceedings of this committee shall be confidential, and its records of unsuccessful applicants shall be destroyed within a reasonable time. (SBL 7.6)

All applications submitted to ASHRAE Headquarters for Member grade must be on an ASHRAE application form, whether electronic, fax or hard copy.

Space shall be provided on the application form for applicant to indicate chapter preference.

All applicants for admission to the Society in the grade of Member and all applications for advancement shall be referred to the Admissions and Advancement Committee for investigation and assignment of grade with the exception of CIBSE (Chartered Institution of Building Services Engineers) members. A reciprocal agreement between CIBSE and ASHRAE accepts the grade of Member in CIBSE as Member grade in ASHRAE for those wishing to join ASHRAE without investigation by the Admissions and Advancement Committee. (07-01-31-19)

2.401.003.2 Qualifying Work Experience (08-01-23-05)

The following shall be defined as qualifying work experience in ASHRAE-related fields as required by Section 2.6 of the Society Bylaws

- ~~Research~~ — must have demonstrated competence in independent and original research of an engineering or scientific nature which has been published.
- ~~Teaching~~ — Assistant Professor or higher in an engineering or scientific discipline.
- ~~Design~~ — Responsible for engineering or scientific design including calculations, system and equipment selection and layout, and performance.
- ~~Installation~~ — Responsible for the installation, start-up and operation of significant systems. Must demonstrate capability of initiating or evaluating the effect of engineering or scientific design changes of any type on the performance of the system.
- ~~Engineering Management~~ — Must be directly responsible for and involved in the management of technical, scientific and engineering phases of the organization, which may include building engineering, operation and maintenance. (04-06-30-10)
- ~~Engineering Sales~~ — Must be responsible for assistance to system designers in the engineering, equipment selection and application of components of heating, refrigeration, air conditioning, ventilation and allied systems. (87-03-28-09)

To be considered satisfactory and adequate to fulfill the requirement in Section 2.6 of the Society Bylaws, professional registration or professional license must be in a field directly related to fulfillment of the Society objectives (as set forth in Section 1.3 of the Bylaws).

The Board accepts all engineering professional registrations from countries outside the U.S. and Canada that have been approved by a two-thirds majority vote of the Admissions and Advancement Committee. (92-01-30-49)

MEMBERSHIP PROMOTION COMMITTEE
(520-150)

2.414.001 SCOPE AND PURPOSE The Membership Promotion Committee shall publicize the aims, activities, achievements, and scientific and educational purposes of the Society toward the end that persons duly qualified shall apply for membership therein. This committee is responsible for applications for membership and advancement, except membership grades conferred as honors. This committee shall review the programs, services and benefits provided by the Society to its members and shall make recommendations for improvements to promote the retention of membership at all levels. This committee will also monitor the Society's membership demographics and, where appropriate, adjust or create programs to ensure that individuals from all demographic backgrounds are being equally attracted to ASHRAE. (ROB 520-150-002)

2.414.003 OPERATION

2.414.003.1 General Requirements

Admissions and Advancement. The correspondence, information obtained, and proceedings of this committee on admission and advancement shall be confidential, and its records of unsuccessful applicants shall be destroyed within a reasonable time. (SBL 7.6). All applications submitted to ASHRAE Headquarters for Member grade must be on an ASHRAE application form, whether electronic, fax or hard copy. Space shall be provided on the application form for applicant to indicate chapter preference. All applicants for admission to the Society in the grade of Member and all applications for advancement shall be referred to the Admissions and Advancement Membership Promotion Committee for investigation and assignment of grade with the exception of CIBSE (Chartered Institution of Building Services Engineers) members. A reciprocal agreement between CIBSE and ASHRAE accepts the grade of Member in CIBSE as Member grade in ASHRAE for those wishing to join ASHRAE without investigation by the Admissions and Advancement Membership Promotion Committee. (07-01-31-19)

This committee administers the Lincoln Bouillon Membership Medal program under guidelines approved by the BOD (2.414.004), and recommends winners to the H&A Committee. A Membership Promotion Committee member can receive the Lincoln Bouillon Award for activities performed prior to serving on the Membership Promotion Committee. The Regional Chairman shall be permitted, with the President's concurrence, to appoint assistants to the Regional Vice Chairmen serving on the Society's Membership Promotion Committee. Only one individual shall be reimbursed for authorized transportation expense. (70-06-28-34) Each Regional Vice Chairman is authorized and expected to attend the following meetings. (71-08-21-20/86-01-23-41/90-06-10-14D/94-06-30-15A/95-02-01-10/96-02-21-38) Chapters Regional Conference and Committee. Regional planning meeting. Formal visits to chapters in lieu of Regional Chairman, if required by Regional Chairman. Regular meetings of the committee at the Winter and Annual Meetings of the Society.

The Membership Promotion Vice Chairman shall act as liaison for the Regional Historian to Society. (86-01-23-43)

The Society shall indicate the Student Member's school affiliation and home address on the monthly chapter changes report and also copy the Membership Promotion Chairman on the membership acceptance letter to the Student Member. (87-07-02-47) [Also in Staff Manual.] 2.414.004 Lincoln Bouillon Award (LBA)

Background: The qualifying work experience for members shown in 2.401.003.2 will be moved to Volume I, ROB _____, as the Policy for Membership Admission and Grade Advancement. The draft policy shown is part of the existing ROB for the Admissions and Advancement Committee. Discussion and background are needed on the proposed changes to Student Members applications to make sure these are appropriate and they will be forwarded to the Membership Promotion Committee for review.

Draft Policy for Membership Admission and Grade Advancement

The following shall be defined as qualifying work experience in ASHRAE-related fields as required by Section 2.6 of the Society Bylaws

1. Research – must have demonstrated competence in independent and original research of an engineering or scientific nature which has been published.
2. Teaching – Assistant Professor or higher in an engineering or scientific discipline.
3. Design – Responsible for engineering or scientific design including calculations, system and equipment selection and layout, and performance.
4. Installation – Responsible for the installation, start-up and operation of significant systems. Must demonstrate capability of initiating or evaluating the effect of engineering or scientific design changes of any type on the performance of the system.
5. Engineering Management – Must be directly responsible for and involved in the management of technical, scientific and engineering phases of the organization, which may include building engineering, operation and maintenance. (04-06-30-10)
6. Engineering Sales – Must be responsible for assistance to system designers in the engineering, equipment selection and application of components of heating, refrigeration, air conditioning, ventilation and allied systems. (87-03-28-09)

To be considered satisfactory and adequate to fulfill the requirement in Section 2.6 of the Society Bylaws, professional registration or professional license must be in a field directly related to fulfillment of the Society objectives (as set forth in Section 1.3 of the Bylaws).

~~The Board accepts all~~ All engineering professional registrations from countries outside the U.S. and Canada are accepted. ~~that have been approved by a two-thirds majority vote of the Admissions and Advancement Committee. (92-01-30-49)~~

~~The Board accepts all~~ All technical and scientific degrees from schools outside the United States and Canada (OUSAC) are accepted ~~that have been approved by a two-thirds majority vote of the Admissions and Advancement Committee~~ as being equivalent to ABET-approved schooling.

Retgression in membership grade is not permitted. A change in membership status to the grade of Student Member is permitted for members returning to school for full-time studies in an ASHRAE approved curriculum.

Applications for admission to the Society in the Student Member grade shall be deemed to comply with the requirements of Article II of the Society Bylaws, ~~as amended~~, if the application includes verification of student status by both the sponsor and the faculty advisor, if these be different people, or by the advisor only if that faculty member is also an ASHRAE member. All candidates for the grade of Student Member must be sponsored by at least one Member or Associate Member of the Society.

The applications of Student Members ~~need be~~ are approved by ~~only the chairman of the Admissions and Advancement Committee or staff. ,~~ after which the Secretary shall be empowered to issue Student Member memberships to the approved applicants. ~~The chairman may delegate the approval of Student Membership applications to the appropriate staff.~~



MEMORANDUM OF UNDERSTANDING

American Society of Heating, Refrigerating and Air-Conditioning Engineers and International Facility Management Association

Founded in 1894, The American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (**ASHRAE**), Atlanta, Georgia advances the arts and sciences of heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world.

Founded in 1980, the International Facility Management Association (**IFMA**), Houston, Texas, is an international association for professional facility managers, supporting more than 19,000 members in 60 countries. IFMA certifies facility managers, conducts research, provides educational programs, recognizes facility management degree and certificate programs, and produces the World Workplace facility management conference and exposition.

In recognition of shared technical interests, ASHRAE and IFMA agree to support this Memorandum of Understanding to advance and promote the mutual interests of engineering and facility professionals. We are committed to work together toward the following goals:

ANNUAL MEETINGS

Recognizing the importance of communication in organizational collaboration, both organizations commit to hold a liaison meeting annually (either in person or via conference call) of designated ASHRAE/IFMA senior representatives to:

- Ensure ongoing advancement of collaborative projects.
- Keep each respective organization informed of major initiatives.
- Discuss new opportunities for collaboration.

Action items with assigned responsibilities shall be recorded at each meeting.

AREAS OF COMMON INTEREST

ASHRAE and IFMA opportunities for collaboration include, but are not limited to, the following:

- Encourage continuing dialogue between ASHRAE and IFMA at all levels on issues of importance to engineers and facilities professionals
- Both organizations agree to share products prepared with respective members without impairing the value of membership in either organization.
 - Where mutually beneficial, jointly promote educational programs to members through collaboration between the ASHRAE Learning Institute and IFMA (such as member discounts offered to the other society's members).
 - Where mutually beneficial, jointly identify, create and implement new products and services including:
 - Regional conferences that encourage the exchange of developing engineering solutions
 - Joint publications (print and electronic)
- Recognizing both organizations currently offer and will continue to expand certification programs, ASHRAE and IFMA agree to:
 - Discuss a collaborative foundation that allows certification programs from each organization to be complementary.
 - Seek ways to promote respective certification programs.

- ASHRAE and IFMA agree each organization shall cross-market, where appropriate, each other's products and services.
 - Each organization will help publicize events on their respective websites and in printed publications.
 - Each organization will consider publishing announcements about new publications, standards, training and educational programs, etc.
 - ASHRAE and IFMA shall discuss mutually beneficial pricing strategies for products and services.

- Each organization agrees to provide the other with:
 - Two complimentary VIP registrations to the organization's primary annual meeting.
 - One complimentary subscription to each printed or electronic magazine.
 - A listing of applicable chapter or regional officer contact information to encourage joint local meetings.
 - Complimentary memberships for the senior volunteer leader and the senior staff officer of each organization.

- ASHRAE and IFMA agree to discuss ways to promote adoption and widespread use of codes and standards of mutual interest.
 - Both organizations will present government affairs strategic objectives and discuss ways to collaborate.

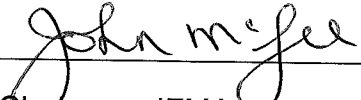
- Recognizing that both organizations have representatives in the Washington, D.C. area, ASHRAE and IFMA agree to collaborate on Government Affairs activities of common interest, including but not limited to:
 - Educating legislators and regulatory agencies on issues confronting building owners, managers and designers.

- Partnering with other organizations to promote built environment issue awareness.
 - Monitoring legislative and regulatory activities that might impact built environment professionals.
-
- ASHRAE and IFMA are committed to improving sustainability in the built environment and agree to collaborate on initiatives that promote energy efficiency in buildings.

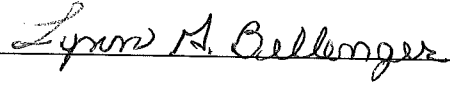
Each organization recognizes the unique and varying concerns of the other and neither organization will interpret or impose conditions herein to prevent the other organization from fulfilling its mission. Each organization will give proper recognition to each other for individual and joint efforts in reporting to their respective membership and to the general public.

This MOU reflects a commitment by ASHRAE and IFMA to continue and enhance their working relationship and individual efforts toward achieving mutual objectives described above. It does not create a binding obligation or agreement between the parties, and neither party has an obligation to negotiate toward or enter into a binding written agreement. In addition, this MOU does not create a partnership, joint venture, fiduciary relationship or similar relationship between ASHRAE and IFMA. Either party may terminate this MOU, with or without stated cause, upon providing the other party with thirty (30) days written notice of intent to terminate. Furthermore, it is understood that this Memorandum of Understanding is conceived as a dynamic document, meant to change as circumstances and priorities warrant, that it is a beginning point and that any protocol of specific projects and activities developed is intended as an integral part of this understanding.

Executed this 16th day of October, 2008



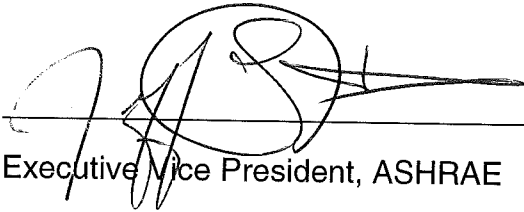
Chairman, IFMA



Treasurer, ASHRAE



President and CEO, IFMA



Executive Vice President, ASHRAE



Memorandum

TO: ASHRAE Board of Directors
FROM: Jeff Littleton
DATE: July 20, 2009
SUBJECT: June 2009-10 Delinquents Analysis and Action Plan

Dues accounted for \$6.19 million or 33% of ASHRAE's \$18.6 million general fund revenues last year. Similarly, the 2009-10 budget calls for dues revenue of \$6.32 million or 33% of total general fund revenues of \$18.95 million. Because they account for a substantial portion of our revenues, small movements in membership levels at the beginning of a fiscal year have a big financial impact.

The June 2009 Membership Dashboard showed delinquent memberships jumped to 12,628 compared to just 3,588 one year ago. This suggests ASHRAE is at risk for a membership and revenues dues shortfall in 2009-10. The critical questions are:

- How much is the potential dues revenue shortfall?
- What can be done to renew delinquents and reduce that financial exposure?
- What is the impact on the 2009-10 ASHRAE budget and what other action should be taken to reduce expenses?

Delinquent Definition

A delinquent membership occurs when a member fails to pay dues by their annual membership renewal date. According to the ASHRAE bylaws, the individual remains a "member" for 6 months after the renewal date without paying dues (three months with full benefits and three months without benefits). Consequently, delinquents within 6 months of their renewal date are 'delinquent members' and those beyond 6 months are 'cancelled members'.

Renewal Schedule History

ASHRAE previously issued renewals on an annual billing cycle, meaning all memberships began July 1 and ended June 30. Members joining mid-year were charged a pro-rated membership rate. In 1997-98, ASHRAE switched to anniversary billing so that the membership year begins the month in which the membership is first created. However, some 43% of ASHRAE members still renew June 30th each year due to the legacy impact of annual billing. The economic turmoil peaked last fall *after* those June renewals had already occurred. While we have been expecting a jump in delinquents in the last quarter of the fiscal year, the magnitude of the June 09 jump is an unwelcome surprise.

Delinquent Demographic Data

The number of delinquents reported in the June 09 membership dashboard was 12,628. Of that number, 9,181 (73%) are in the U.S., 1,144 (9%) are in Canada, and 2,303 (18%) are in other countries. Fully 10,268 (81%) of delinquents are within 90 days of their renewal date. A breakdown of the 12,628 dashboard delinquents by grade is provided below. (Note that

multiplying members times a member grade dues rate will not always match the unpaid amount exactly because of changes in grades from year to year and other issues.)

Grade	Paid	Unpaid	Unpaid Amount	TOTAL
Affiliate	865	186	\$ 7,440	1,051
Associate	13,390	4,241	699,765	17,631
Life	4,568	0	0	4,568
Member	15,889	6,436	1,061,940	22,325
Developing Eco	525	0	0	525
Retired	168	101	2,020	269
Student	4,108	1664	26,624	5772
TOTAL	39,513	12,628	\$1,797,789	52,141

As of July 15th, we have seen a slight improvement in the numbers as indicated below. Note that this reflects a \$200,000 dues revenue gain in just two weeks.

Grade	Paid	Unpaid	Unpaid Amount	TOTAL
Affiliate	877	180	\$ 7,200	1,057
Associate	13,922	3,850	635,250	17,772
Life	4,568	0	0	4,568
Member	16,771	5,647	931,755	22,418
Developing Eco	539	0	0	539
Retired	186	85	1,700	271
Student	4,188	1,649	26,384	5,837
TOTAL	41,051	11,411	\$1,602,289	52,462

Delinquents History

Excluding June 2009, delinquent memberships over the preceding 12 months have ranged from a low of 3,588 in June 08 to a high of 6,120 in Sept. 2008. Per the chart below, the monthly number of delinquent memberships has averaged 5,296.

	Delinquents	Total		Delinquents	Total
June 08	3,588	51,695	December 08	4,439	50,864
July 08	6,410	51,303	January 09	4,712	51,662
August 08	5,720	51,319	February 09	5,121	52,110
September 08	6,120	51,499	March 09	5,385	52,238
October 08	5,671	52,066	April 09	5,584	52,054
November 08	5,432	52,413	May 09	5,371	51,858
Average Delinquents: 5,296		Average Membership: 51,757			

The year-ago delinquents number of 3,588 in June 30, 2009 dashboard is the lowest in the past 12 months. Importantly, multiplying the number of delinquent members by their grade dues rate heavily exaggerates the financial dues revenue shortfall that might result from the June 09 delinquents spike. In 2008-09, ASHRAE averaged 5,296 delinquents each month – almost half of the 11,411 we recorded July 15, 2009 – and yet paid and total membership remained steady throughout 2008-09. History has proven that a significant percentage of these delinquents will eventually pay dues. The challenge is to forecast the *incremental additional dues revenue shortfall* that may occur as a result of June 2009 delinquents spike and to forecast changes in

renewal patterns caused by economic conditions. It is important to remember that in any one month, hundreds of ASHRAE memberships are cancelled and created. Consider the following statistics for the critical \$165 Associate and Member dues categories:

2007-08

- 4,792 membership cancelled; average of 400 each month; high of 832 in Dec. 07.
- 6,289 memberships added; average of 524 each month; high of 634 in Feb. 08.

2008-09

- 6,325 memberships cancelled; average of 527 each month; high of 1,189 in Dec. 08.
- 6,455 memberships added; average of 537 each month; high of 859 in Jan. 09.

Renewal Notification Changes

Changes were recently made to the renewal notification process that we now suspect contributed to the spike in delinquents. For the first time, all members that renewed electronically in the preceding year were sent electronic renewal notices *only* prior to the renewal date. They received nothing in paper form. Due to spam filters or email volume, we now believe that the paper renewal package plays a big role in pushing *online* renewals. The paper package provides a constant desktop reminder and something to circulate to corporate accounting departments when the employer pays ASHRAE dues.

The existing renewal notification calendar is outlined below:

	90 days out	60 days out	Renewal Date	90 Days Expired	180 Days Expired
Renew or Joined Online	Email Notice	Email Notice	Email Notice	Printed renewal packet	Email and postcard
Renewed or joined on Paper	Printed renewal packet	Email and postcard	Email and postcard	Printed renewal packet	Email and postcard

We are now sending a complete hard-copy renewal package to all delinquent members and expect a significant percentage to renew.

Exposure Calculation

Forecasting dues renewal exposure ultimately boils down to predicting the behavior of those delinquent members and our ability to recover or replace them. The numbers here provide a foundation for a prediction, but it is still little more than a prediction – an educated guess.

Percentage Increase in Delinquents – The monthly average number of delinquents last year was 5,296 and paid/total ASHRAE membership stayed constant. Subtracting that average from the 11,411 delinquents we registered at July 15th leaves 6,115 incremental additional delinquents (53%) at the end of June. If we assume that *none* of the incremental additional delinquents renew – which is an overstated worst-case scenario – our exposure would be \$850,000. If we assume that half will renew, our exposures is \$425,000.

Deferred dues revenue – When a member pays dues, we apply the dues to the financial statements as revenue in 12 monthly increments. While dues are waiting to be applied, they sit on the balance sheet as deferred revenue. Below is a deferred revenue history for the past five years:

Year	6/30/09	6/30/08	6/30/07	6/30/06	6/30/05
Dues	\$165	\$165	\$150	\$150	\$150
Deferred Rev	\$3.56 million	\$4.24 million	\$2.60 million	\$3.20 million	\$2.30 million

Many things impact deferred dues revenue, such as the dues rate, timing of the renewal mailings, new programs that encourage the paying of three years of dues in advance (for a discount), etc. For the past two years, the dues have been \$165. The difference between deferred dues revenue today and one year ago is \$680,000.

Financial Exposure – Based on the data above, it is reasonable to expect that dues revenue will be lower than our 2009-10 budget by \$300,000 to \$500,000, or 5% to 8% of the total \$6.3 million dues revenue budget. This estimate includes the impact of an aggressive membership retention and recruitment campaign outlined below.

Recommendations

1. Be prepared to take action. It will take 2-3 months for the 2009-10 membership renewal trend lines to become reliable. By the October Board meeting, our 2009-10 dues forecast accuracy will improve by a factor of 10. This early estimate may overstate the scope of the problem, but we must plan for the worst while we hope for the best. We have accumulated reserves for this type of 'rainy day'.
 - a. Between now and October, provide the Board detailed reports on delinquents recovery efforts with the monthly membership dashboard.
2. Implement a full-court press on membership retention and renewal targeting the delinquents. A plan of attack is outlined below.
3. Identify ways to reduce or postpone expenses until October 2009 when renewal trends will have become clearer.
 - a. Have each Council prepare ways to reduce budgeted expenses by 3-5% (roughly Members Council \$100,000; PEC \$150,000; Tech Council \$100,000).
 - b. Push the 2009 commissioning webcast (formally satellite broadcast) from the spring to the fall of 2010, effectively cancelling it for the current society year. Savings: \$100,000. No contracts have been signed. Decision needed on the July 27th Board conference call.
 - c. Implement a staff hiring freeze, at the discretion of the EVP. Savings: TBD
 - d. Eliminate staff-wide 2009-10 bonus program. Savings: \$50,000.
 - e. Postpone the budgeted January launch of the Foundation Development Office. Savings: \$100,000. Reviewed in October.
 - f. Evaluate ways to lower staff and volunteer travel costs.

Delinquents Recovery Program

1. Send a hard-copy renewal package to all existing delinquent members. For those that renewed online last year, this will be the first hard-copy notice they receive. Note that 43% of current delinquents fall into this category. This program is now underway. Cost: \$5,977.
2. Use an outside telemarketing firm to call all delinquent members. Solicit the renewal and develop an improved understanding for why they may not renew. This program is now underway. All delinquents will be contacted within 5 weeks. Cost: \$30,840.
3. Issue a 'call to arms' to the Chapter Membership Promotion network.
 - a. Hold a conference call with all membership promotion RVCs where President Holness asks for their herculean support during this difficult time. Follow conference call with a letter from President Holness that reinforces message and

- touches all MP RVCs, including those unable to make the conference call. An alternative is to have a series of conference calls for each Region involving the Chapter Chairs, Chapter MP RVCs, and DRCs.
- b. Create a competitive environment by announcing special recognition in Orlando for the Region whose chapters most aggressively reduce their delinquents over the next six months. Consider a Regional cash prize of \$5,000.
 - c. Provide monthly telephone outreach by staff to every Chapter MP RVC offering support and making sure they have all reports or other resources needed. Consider diverting some RP support staff to MP activities.
 - d. Ask DRCs to contact all Chapter Presidents and MP RVCs. Rally and motivate volunteers. DRCs to report contacts in Orlando.
4. Provide an additional member renewal incentive. Every member that renews between now and October receives a complimentary ASHRAE Pocket Guide. Cost: \$4 each.
 - a. This may be considered inequitable by those that renewed on time and a way of rewarding bad behavior, but the advantages outweigh the disadvantages. The incentive could be used for new members only.
 5. Launch a reinvigorated member-get-a-member campaign from headquarters.
 - a. All members that recruit a member over the next 6 months get a complimentary ASHRAE logo item.

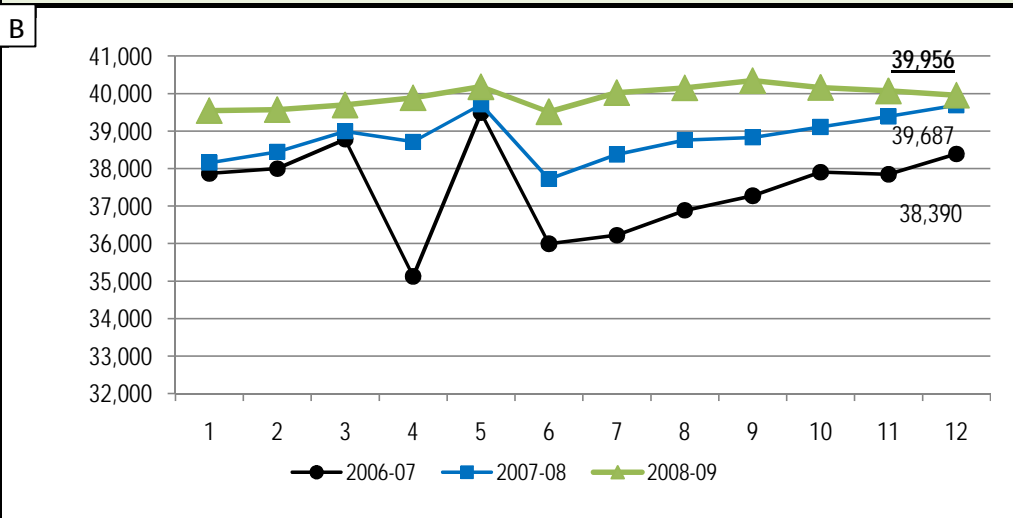
*Respectfully submitted,
Jeff Littleton*

June 30 Membership Dashboard (6/30 Data)

At A Glance...

\$165 Total Members: 2007, 2008, 2009

A	TOTAL MEMBERS:	52,141
	Membership Growth:	761
	Cancelled Members:	478
	Net Change:	283
	Previous Month:	51,858



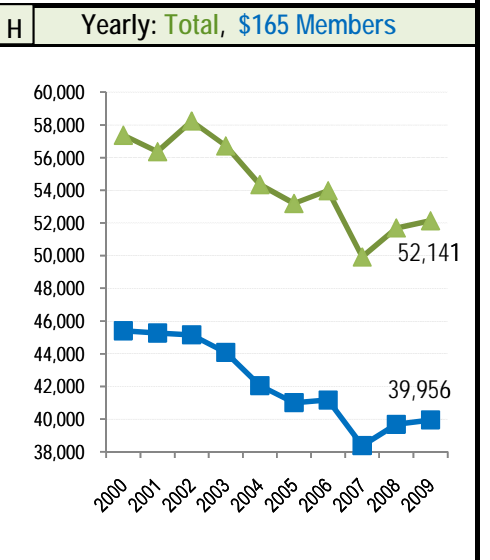
C		Current Month	Previous Month	Delta	Year Ago	Delta	12 Month Average	Delta	Dues Income Multiplier
	Full Members (\$165)	15,889	20,869	(4,980)	21,790	(5,901)	20,081	(4,192)	\$2,621,685
	Associate (\$165)	13,390	15,659	(2,269)	15,574	(2,184)	15,259	(1,869)	\$2,209,350
	Affiliate (\$40)	865	726	139	856	9	750	115	\$34,600
	Student (\$16)	4,108	4,181	(73)	4,120	(12)	4,236	(128)	\$65,728
	Retired (\$20)	168	283	(115)	259	(91)	235	(67)	\$3,360
	Developing Economy (\$90)	525	468	57	98	427	340	185	\$47,250
	Life (\$0)	4,568	4,301	267	5,410	(842)	4,781	(213)	\$0
	Current Members	39,513	46,487	(6,974)	48,107	(8,594)	45,683	(6,170)	\$4,981,973
	Delinquents	12,628	5,371	7,257	3,588	9,040	6,059	6,569	
	Total Members	52,141	51,858	283	51,695	446	51,742	399	

D	Industry Classification	
	Consulting Engineer	17,086
	Contractors	5,257
	Students	4,909
	Manufacturers	4,181
	Manufacturer's Rep	3,394
	Other	3,395
	Gov't, Health, Education	3,021
	Architectural/AE	2,707
	Design Build	2,657
	Industrial Facility	899
	Utility	828
	Distributor	737
	Sales Engineering	688
	Commercial Facility	635
	Property Managers	610
	Educational Institution	526
	Association	382
	Research Institution	209
	Library	20
	TOTAL	52,141

E	Top Countries (total mem/stud paid and unpaid)	
Canada	3,900/1,144	Mexico 249/124
Hong Kong	559/248	Singapore 214/70
UK	563/182	Malaysia 210/57
India	472/115	Greece 176/43
UAE	409/159	Kuwait 130/77
Australia	285/99	Pakistan 92/110

F	Geographic Distribution		
84%		U.S./Can.	43,573
16%		Global	8,568
		TOTAL	52,141

G	Total Region Members			
	Region 1	5,715	Region 9	3,436
	Region 2	3,328	Region 10	4,335
	Region 3	4,889	Region 11	3,564
	Region 4	2,808	Region 12	2,607
	Region 5	3,321	Region 13	2,721
	Region 6	4,608	RAL	4,906
	Region 7	2,073	Other	70
	Region 8	3,760	Total	52,141
	Top Regions			
	% Gain YTD:	RAL:	1.64%	
	# Gain YTD:	RAL:	79	



Membership Dashboard Legend

A	Net growth: the total number of members compared to last month to include new members and cancellations
B	The total number of paid and unpaid members in the \$165 dues category (Member & Associate) for the last three years by month
C	The total number of paid members in each dues category for this month, last month, one year ago, and as a 12-month average, to include overall delinquents
D	The total number of paid and unpaid members in each industry area
E	Top membership countries in ASHRAE to include the total number of paid and unpaid members and students outside the USA
F	Total membership comparison of North America versus international
G	The total number of paid and unpaid members and students in each region, to include largest regional percentage and number growth
H	The total number of all members versus the total number of \$165 paid and unpaid members for the last eight years (at the end of the fiscal year <6/30> for 2000-2007, and YTD for 2008)

REPORT TO BOARD OF DIRECTORS
From Members Council
Meeting of June 22-23, 2009

Information Items:

Region and Chapter Activities:

1. Members Council approved the following charters during the Louisville meeting:
 - Chennai Chapter which is the fourth chapter in India. The chapter boundaries will cover the State of Tamil, Nadu and the Union Territory of Pondicherry, India. The Chennai Chapter members were part of the South India Chapter.
 - Southern Methodist University Student Branch, located in Dallas, Texas and sponsored by the Dallas Chapter.
 - University of Alabama-Birmingham Student Branch, located in Birmingham, Alabama and sponsored by the Birmingham Chapter.
 - University of British Columbia Student Branch, located in Vancouver, British Columbia, Canada and sponsored by the British Columbia Chapter.
 - University of Hartford Student Branch, located in Hartford, Connecticut and sponsored by the Connecticut Chapter.
 - University of Western Ontario Student Branch, located in London, Ontario, Canada and sponsored by the London Chapter.

2. During the Louisville meeting, Members Council provided a workshop training to all of the grassroots committee Regional Vice Chairs on Thursday, June 18. The presenters were Alan Veeck, Society President Bill Harrison and Past Society President Kent Peterson. This was in addition to the Members Council Orientation for incoming committee chairs and vice chairs held Tuesday, June 23. Both the workshop training and orientation session were well received.

Honors and Awards (H&A):

3. Members Council approved the following recommendations from the Honors and Awards Committee to be presented during the 2010 Winter Meeting in Orlando, Florida:
 - Eckhard A. Groll will be the recipient of the 2010 E.K. Campbell Award of Merit.
 - Leo P. Stambaugh will be the recipient of the 2010 John F. James International Award.
 - Roderic Potter will be the recipient of the 2010 Lou Flagg Historical Award.

4. The Honors and Award Committee has requested the assistance of Members Council to solicit nominations for Society-level awards, including Fellow, F. Paul Anderson, Louise and Bill Holladay, the ASHRAE Award for Distinguished Public Service, Andrew T. Boggs and the Hall of Fame. Because nominations had not been received by the H&A Committee, the committee had to actively seek them. The H&A Committee has identified a qualified ASHRAE member who will be nominated for a National Academy of Engineering (NAE) Award next spring.

Research Promotion (RP):

5. The Research Promotion Committee enthusiastically reached 99.6% of their 2008-2009 goal and raised \$2,038,000. In 2007-2008, there were 22 Golden Circle contributors, in 2008-2009, the RP Committee received commitments from 17 of them. The drop in Golden Circle contributors can be directly contributed to the economy. Four of the five who dropped out have contributed (but less than \$10,000) and the RP Committee anticipates they will renew their Golden Circle status as the economy improves.
6. Due to several comments from donors, including a Golden Circle donor who cited a lack research in their specific area, the RP Committee has requested a liaison with RAC. IIAR expressed their admiration of ASHRAE and the research program but the perceived lack of research and the “growing silent R” in ASHRAE concerned them, stating they would be happy to help sponsor refrigeration projects instead of a direct contribution with no research attached. The RP Committee will follow up with IIAR with some of the current research projects that focus on refrigeration.

Membership Promotion (MP):

7. The Membership Promotion Committee ended its year with 52,141 members (Member paid: 35,403; Member unpaid: 10,965; Student paid: 4,109; Student unpaid: 1,664). Based on the recommendation from the Finance Committee to the Board of Directors, effective July 1, 2010, the membership dues will increase to \$180 with subsequent \$5 increases annually. There are 25 countries participating in the developing economies dues program: Total membership is 512: 162 new members and 350 existing members.
8. The MP Committee’s new recruitment and retention program MIDIS (Membership Information Demographical Intelligence System) is a tremendous success. This program creates a PURL (personalize URL) for members, prospects (customers and cancelled former members) and lapsed members. The PURL is designed to bring specific information to members based on their technical interests, position/company focus, regional location and age. Between the months of March and June, \$124,133 in revenue can be attributed to PURL activity (combination of membership dues and product sales). The MP Committee thanks staff for their efforts in helping to coordinate this project.
9. The Membership Promotion Committee implemented a new Regional Vice Chair (RVC) training program with 30 minute training bursts to better prepare the RVCs for their year. The RVCs were involved in presenting and the most important topics were covered. The MP Committee is investigating the option of either centralized CRCs or centralized virtual workshops that can augment CRC workshops. The committee plans to create a virtual workshop for all MP Chairs who did not attend their 2009 Spring CRC as a test method. The committee will continue their efforts with the online Membership Marathon and will offer the following topics in Fall 2009:
 - Running Reports
 - Building YEA Member Excitement
 - MP Chair Best Practices
 - How to Promote ASHRAE to Potential Members (new)
 - Retention Tools for Chapters (new)
 - Membership Grades (new)

10. There is an increased use of the MP Facebook page. The MP Committee plans to better define the facebook page to ensure this is as helpful of a tool as possible. One of the committee's goals is to plan different marketing techniques to help promote being an ASHRAE member in the industry. The primary goal for the MP Committee in 2009-10 will be: chapter chair training through supplemental training methods; member calling campaigns for retention; increasing online membership transactions (renewals and applications); and continued promotion of PURLs to drive relevant information to members.

Admissions and Advancement (A&A):

11. The calculator for new member applicants online is fully operational. If an applicant meets the 12 points needed for Member grade, they are awarded the "Member Pending A&A" status and only a biographical record is needed for review. Also, anything a member enters on their record is now populated in the biographical system in NetForum. Three points will be awarded to members who holds a professional license in any country where ASHRAE has a chapter, section or group. Engineering programs that are not ABET accredited but are accredited by a body in a respective country are used in the calculator. The advancement from an Associate grade to Member grade is also included in the calculator. Effective July 1, 2009, the Admissions and Advancement Committee will be reduced to five members from nine to proceed electronically and more efficiently.

Conferences and Expositions (CEC):

12. The Conferences and Exposition Committee launched the first ASHRAE specialty conference in 2008-09 and will initiate three additional conferences in 2009-10. CEC exceeded initial expectations by executing its first specialty conference, "Net Zero Energy Buildings." Net Zero was launched and held before an audience 10% beyond projected attendance to extremely positive reviews. Specialty conferences planned for 2009-2010 and 2010-11 are: High Performance Schools conference based on the K-12 AEDG (March 2010, ASHRAE Headquarters, Atlanta, GA); Energy Efficiency in Existing Buildings (April 2010, New York City, NY); and IAQ (November 2010, Kuala Lumpur, Malaysia). A Net Zero conference in Boston, MA is being investigated.
13. A new conference paper format was implemented for the Winter and Annual conferences with a revised programming process. The 2010 Annual Conference in Albuquerque will exhibit nearly the full roll out of the new plans and processes. This format will exemplify a view of conferences that places emphasis on consistent market-centered tracks and will present the attendee with a more robust and complete educational experience throughout the conference tracks. The new conference paper format will be fully implemented for Albuquerque. This format will be shorter, single-blind peer-reviewed conference paper which places ASHRAE literature and review requirements in line with the requirements of technical paper rating services. It is intended that the Winter and Annual conference tracks be similar to the experience of attendance at a "specialty conference." All elements of the ASHRAE conference programs were examined in 2008-09, the initial needs were prioritized and addressed.
14. As the new processes are put into place, CEC is taking advantage of the opportunity to make the ASHRAE conference planning process more seamless, transparent and robust. The scheduling process will allow speakers to select the timeslot which they wish to fill

therefore giving them input into when they will speak. The initial committee structure for CEC was put into place and administrated the first year, slight modifications to the internal committee structure will be implemented in 2009-10. In an effort to strengthen the communication between TAC and CEC, a regular meeting of the TAC ExCom and CEC has been scheduled for Saturday mornings during the conferences. During these meetings, pending changes in process are discussed as well as how both groups can better serve Society. As changes are developed in the program process, these are initially discussed with TAC leadership to insure buy in from the technical committees.

15. Timelines for future conference development have been generated and discussed with various committees, staff and other individuals involved. The timeline will guide the development of future conferences and provide involved parties with the information to plan their activities appropriately to participate in the conferences. The development process has been a two-year process with critical way points. Preliminary themes for future meetings have been selected and are posted on the website.
 - 2010 Winter Conference, January 23-27, 2010, Orlando, Florida – Theme: Humidity and Sustainable Indoor Environment
 - 2010 Annual Conference, June 26-30, 2010, Albuquerque, New Mexico – Theme: Energy Efficient System Design for High Elevations and Dry Climates
 - 2011 Winter Conference, January 29-February 2, 2011, Las Vegas, Nevada – Theme: Zero Energy Design
 - 2011 Annual Conference, June 25-29, 2011, Montreal, Quebec, Canada – Theme: Net-Zero Buildings

Chapter Technology Transfer (CTTC):

16. The fifth CTTC Satellite Broadcast/Webcast, “Clean, Lean, and Green: IAQ for Sustainable Buildings,” was completed on April 22, 2009. An estimated 17,717 viewers watched the program at 1,279 sites. The webcast was viewed in 41 countries outside of the US and Canada. 95% of the 1,707 respondents to online evaluation were very satisfied with the program and its components. The average cost per viewer for this program was \$6.20. A webcast on “Commissioning” is planned by CTTC for April 2010.
17. The 2008-09 Distinguished Lecturers Program had a total of 171 visits by 49 of the 75 lecturers. 62 non-budgeted visits were completed in addition to 109 budgeted visits. 27 of the 75 DL are from countries outside of the US. CTTC enhanced the promotional materials for the 2009-10 DL Program by providing chapters with a one-page Media Advisory describing recommended avenues for promotion of DL visits. A short video presentation has been taped by CTTC in Louisville to provide chapters with an overview of the DL Program and outline the steps to be used by chapters to secure a DL visit. The video will be provided to chapters later this summer.
18. CTTC discussed the chapter chair attendance of CRC workshop and will continue to look for more ways to make improvement. The committee will complement CRC workshop training with Go-To-Meetings for the chapter chairs this Fall.
19. CTTC disseminated information prepared by the Washington Office for the June 15-19 “Virtual Congressional Visit Days,” (vCVD). Chapters were provided tips and tools to contact their member of Congress by phone, fax, or e-mail to ask them to join the High-

Performance Building Congressional Caucus Coalition and support high-performance building issues.

20. CTTC disseminated the BS+30 Kit developed by the Washington Office to chapters and has accepted an action item to request that chapters encourage their licensing boards to support a rescission of the NCEES model law.

Young Engineers in ASHRAE (YEA):

21. The 2009 Young Engineers in ASHRAE Leadership Weekend was a tremendous success. 32 individuals attended including guest member, Society Vice President, Jim Fields. The YEA Committee has received an overwhelming request to offer the Leadership Weekend during the Fall to better time the event with the start of the chapter year. The YEA Committee is also hoping to create a Distinguished Young Member group that can visit and assist chapters with the development of YEA programs.
22. YEA participated in the MP Membership Marathon in April 2009 by hosting a session entitled "Building YEA Member Excitement." The same session will be offered during Fall 2009. The hospitality suite in Louisville attracted more than 50 visitors and was sponsored by PEI from Portland. Attendance was slightly down from the Salt Lake City meeting. In order to better promote meetings and targeted events to YEA members, the committee will create their own YEA Meeting Planner for the Orlando meeting to bring as much relevant information as possible to registered YEA members. This will be a digital resource only.

Student Activities (SA):

23. ASHRAE is the supporting sponsor of the Solar Decathlon which will be held October 9-18, 2009 in Washington, D.C. Resources offered to each team at no cost included: Handbook CD+, HVAC Simplified, ASHRAE GreenGuide, and Standards 55, 62.2 and 90.2. 15 ASHRAE members have been identified to serve as Observers for this event. They are dedicating 9 days to administer 10 decathlon contests that take place over the course of 9 days. The Solar Decathlon Ad Hoc Committee will host two workshops during "Building Industry Day," October 15 and two on "Consumer Workshop Day," October 17. The workshop topics are "Net-Zero Energy Homes That Are Grid-Connected." ASHRAE with support from the American Solar Energy Society, AIA and USGBC, will host a student reception on Saturday, October 10 at 7:00 PM. Plans to promote the Solar Decathlon will be located on the ASHRAE website.
24. The Student Activities Committee 2009 Student Design Project Competition is complete. The competition featured a 15,650 ft² office building. The original project was designed for the Nashville, TN area.

The China Student Design Competition is underway. ASHRAE sponsors this design project competition to encourage Mainland China Students to become involved in the dynamic profession of HVAC and to apply their knowledge to practical design use and to promote teamwork.

25. On June 12, 2009, ASHRAE launched a new career services program name ASHRAEjobs.com which is a full service job and resume posting service connected

directly to the HVAC&R industry. Employers are able to post internship opportunities for students at no cost.

26. The SA Committee received 45 applications for the Senior Undergraduate Project Grants, 13 grants were awarded for 2009-10. As the team with the highest ranking, the University of Colorado-Boulder project team will present their project at the 2010 Orlando Student Program.
27. The SA Committee will be exploring the possibility of using current grant funds to create a specialty grant strictly for student branches to apply based on project submittals where students create a K-12 project that can be implemented in a local elementary or middle school. This could also be used a model program for all students to use in promoting HVAC&R engineering to K-12 demographic.
28. The student transfer programs continues to grow by branding and promoting this program. In 2007-08 the total membership for student transfers was 84, we are now up to 221 in 2008-09.
29. The SA Committee has made tremendous progress in K-12 education programs. A new portion of the Student Zone website will launch in the next month: www.ashrae.org/ashrae12. This will serve as a member resource site for conducting K-12 outreach, and will contain the following elements:
 - a. An explanation of Science, Technology, engineering and Math (STEM) and a link to the ASHRAE STEM report.
 - b. An extensive database of K-12 activity sorted by age level. These experiments contain general math and science principals.
 - c. A fact sheet for use by volunteers on how to conduct a classroom visit.
 - d. Brief videos of sample classroom demonstrations/activities.
 - e. "Energy Facts" sheet to give to students.
 - f. An interactive feature where members can upload testimonials and photos of K-12 activities that were implemented and successful.
 - g. A counter that will track how many members are logging conducted activities.
 - h. Handouts for students to take home to parents.

July 15, 2009

Date



Gordon V. R. Holness, Chair

INFORMATION REPORT TO BOARD OF DIRECTORS
From Technology Council
Meeting of June 23-24, 2009

STANDARDS COMMITTEE:

1. Highlights of Other Standards of Particular Interest:

- a. Standards Committee discussed the strategic planning process and came up with some activities and issues that may be of importance to the Society as shown in **Appendix ST-A**.
- b. ANSI/ASHRAE Standard 34-2007, *Designation and Safety Classification of Refrigerants*. The SSPC at its meeting considered a change proposal that will require a \$1,000 refrigerant application fee. A continuation letter ballot has been sent to those SSPC members that were not in attendance in Louisville that will close on July 17, 2009. If approved, this addendum will go out for public review on September 11, 2009. This was an action item assigned to Standards Committee.
- c. ANSI/ASHRAE Standard 62.1-2007, *Ventilation for Acceptable Indoor Air Quality*. SSPC 62.1 sponsored two seminars in Louisville 2009: Seminar 14 was held on Sunday titled *Balancing Indoor Air Quality and Energy Conservation/Efficiency Objectives in Schools* and Seminar 54 was held on Wednesday titled *Optimal Air Quality: Control of Ozone*.
- d. ANSI/ASHRAE Standard 62.2-2007, *Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings*. SSPC 62.2 is the cognizant committee for Standard 136. This standard is maintained on a five year cycle (periodic maintenance) and in Chicago 2009 the project committee recommended that Standard 136-1993 (RA 2006) be revised. SSPC 62.2 will act as the revision project committee. SSPC 62.2 sponsored a transactions session in Louisville 2009 on Wednesday titled *Issues with Ventilation and Indoor Air Quality in ASHRAE Residential Standards* (Transactions 17).
- e. ANSI/ASHRAE/IESNA Standard 90.1-2007, *Energy Standard for Buildings Except Low-Rise Residential Buildings*. The first public review of addenda *be* (adds requirements for vestibules), *bf* (adds requirements for continuous air barriers), *bg* (adds requirements for water-to-water heat pumps), *bh* (adds requirements for supply air temperature reset), *bi* (increases the pipe insulation requirements), *bj* (adds requirements for demand control in Appendix G), *bk* (clarifies the motor requirements), *bl* (removes the exception for glycol chillers), *bm* (makes Visible Transmittance (VT) consistent with AAMA Standards), *bn* (adds fenestration orientation limitations), *bo* (makes Appendix G consistent with addenda e, s, and u to 90.1-2007), *bp* (adds lighting controls), *bq* (modifies the retail lighting power allowances) and *br* (adds exterior lighting Zone 0), the second public review of addenda *am* (modifies the fenestration infiltration allowance) and *az* (adds functional testing for lighting installations), and the third public review of addenda *f* (add requirements for cool or high albedo roofs) and *av* (add requirements for lighting alterations) began on June 19, 2009. SSPC 90.1 addressed comments to the proposed Title, Purpose, and Scope in Louisville. An interim meeting has been requested in Chicago for October, 2009. SSPC 90.1 is reviewing a work statement for a User's

Manual that is intended to be published at the same time as the 2010 version of the standard. See also item 2 under Special Projects.

- f. ANSI/ASHRAE Standard 90.2-2007, *Energy Efficient Design of Low-Rise Residential Buildings*. SSPC 90.2 has approved a revision to its current title purpose and scope (TPS) to help the committee reach its goal of 30% improvement to the standard by 2010 and to make the TPS in line with the 90.1 TPS.
- g. ANSI/ASHRAE/IESNA Standard 100-2006, *Energy Conservation in Buildings*. The Standards Committee approved the revision of Standard 100 which was also approved by IESNA. It is anticipated this will be fast tracked. The project committee met for the first time in Louisville.
- h. BSR/ASHRAE/USGBC/IESNA Standard 189.1P, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*. The third public review draft of Standard 189.1P ended June 15, 2009. The SPC met in Louisville and plans to hold interim meetings (face-to-face and net-meetings) to address comments. SPC 189.1 reviewing a proposed work statement for a User's Manual that is intended to be published at the same time as the standard. See also item 1 under Special Projects.

3. Public Review Approvals including Reaffirmations and Withdrawals:

- a. ASHRAE Guideline 11P, *Field Testing of the HVAC Controls Components*.
- b. ASHRAE Addendum a to Guideline 29-2009, *Guideline for the Risk Management of Public Health and Safety in Buildings*.
- c. BSR/ASHRAE Addenda f and i to ANSI/ASHRAE Standard 15-2007, *Safety Standard for Refrigeration Systems*.
- d. BSR/ASHRAE Standard 200X), *Method of Testing for Rating Room Air-Conditioners and Packaged Terminal Air Conditioners*.
- e. BSR/ASHRAE Standard 24-2000R, *Methods of Testing for Rating Liquid Coolers*.
- f. BSR/ASHRAE Addenda af and aw to ANSI/ASHRAE Standard 34-2007, *Designation and Safety Classification of Refrigerants*.
- g. BSR/ASHRAE Standard 37-2005R, *Methods of Testing for Rating Electronically Driven Unitary Air-Conditioning and Heat Pump Equipment*.
- h. BSR/ASHRAE Standard 58-1986 (RA 200X), *Methods of Testing for Rating Room Air-Conditioner and Packaged Terminal Air Conditioner Heating Capacity*.
- i. BSR/ASHRAE Addenda d, g, l, m, n, o, p, q, r and s to ANSI/ASHRAE Standard 62.1-2007, *Ventilation for Acceptable Indoor Air Quality*.
- j. BSR/ASHRAE Addenda f, g, h and i, to ANSI/ASHRAE Standard 62.2-2007, *Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings*.
- k. BSR/ASHRAE Addenda e, f, r, ai, am, av, ax, ay, az, ba, bb, bc, bd, be, bf, bg, bh, bi, bj, bk, bl, bm, bn, bo, bp, bq and br to ANSI/ASHRAE Standard 90.1-2007, *Energy Standard for Buildings Except for Low-Rise Residential Buildings*.
- l. BSR/ASHRAE Addenda g, h, i, k, l, n, p, t, u, v and w to ANSI/ASHRAE Standard 135-2008, *BACnet-A Data Communication Protocol for Building Automation and Control Networks*.
- m. BSR/ASHRAE Addenda d and e to ANSI/ASHRAE Standard 135.1-2007, *Method of Test for Confirmation to BACnet*.
- n. BSR/ASHRAE Addenda a and b to ANSI/ASHRAE Standard 161-2007, *Air Quality Within Commercial Aircraft*.
- o. BSR/ASHRAE Addenda a, b and c to ANSI/ASHRAE Standard 170-2008, *Ventilation of Health Care Facilities*.

- p. BSR/ASHRAE/IESNA/USGBC Standard 189.1P, *Standard for the Design of High-Performance Green Buildings Except for Low-Rise Residential Buildings*.
- q. BSR/ASHRAE Standard 190P, *Method of Testing for Rating Indoor Pool Dehumidifiers for Moisture Removal Capacity and Efficiency*.

4. Title, Purpose, and Scope (TPS) Changes approved

- a. Guideline 27, *Measurement Procedures for Measurement of Gases in Indoor Environments*
- b. Standard 153P, *Method of Testing for Capacity Rating of Four-Way Refrigerant Reversing Valves*
- c. Standard 154, *Ventilation for Commercial Cooking Operations*
- d. Standard 188, *Prevention Practices for Legionellosis Associated with Building Water Systems*

5. Other Standards Committee Items of Interest:

- a. To date during the 2008-2009 Society Year, Standards Committee has processed the following:
 - i. 676 Project Committee roster changes
 - ii. 90 Publication Drafts
 - iii. 50 Public review
 - iv. 1,428 Public Review Comments

6. Status of International Standards

- a. Intersociety Representative update

The next meetings of the Green Building Initiative's Full Technical Committee have been scheduled for June 30, 2009 and July 14, 2009. The committee will review and discuss comments from the committee and the public regarding the GBI Proposed American National Standard 01-200XP: *Green Building Assessment Protocol for Commercial Buildings*. ASHRAE is represented on this committee by Bill Coad. The meetings will be held by teleconference and are open the public.

- b. ANSI Standards Tracking and Status of ANSI PINS conflicts

The AMOS-I reviews ANSI Standards Action (published weekly) to identify public review drafts or project initiation notices that may be of interest to ASHRAE SPCs and TCs. The AMOS-I also reviews ANSI Standards Action to identify public review drafts or project initiation notices which may overlap or conflict with existing ANSI/ASHRAE standards. The following actions have been taken since the 2009 Winter Conference.

- i. SMACNA, the Sheet Metal and Air Conditioning Contractors National Association, announced the initiation of a new standard, BSR/SMACNA 015-200x, *HVAC Systems Testing, Adjusting & Balancing*, in the February 6, 2009 edition of ANSI Standards Action. The PINS notice was sent to the chair of SPC 111, Gaylon Richardson. On February 11, 2009, ASHRAE sent a letter to SMACNA regarding potential overlap of this proposed standard with ANSI/ASHRAE Standard 111-2008, *Measurement, Testing, Adjusting and Balancing of Building HVAC Systems*.

ASHRAE staff (Stephanie Reiniche and Doug Tucker) and SMACNA staff (Peyton Collie) held a conference call on Wednesday, April 15, 2009 to discuss the issue. ASHRAE sent a letter to SMACNA on May 6, 2009, objecting to further processing of the proposed SMACNA standard as an American National Standard due to areas of overlap and conflict between this and ANSI/ASHRAE Standard 111-2008. SMACNA responded on May 27, 2009, stating that the two standards have different audiences. No further action has been taken by either ASHRAE or SMACNA.

- ii. ASTM International announced the initiation of a new standard, BSR/ASTM WK13508-200x, *Standard Test Method for the Performance of Self-Contained Soft Serve Machines*, in the March 27, 2009 edition of ANSI Standards Action. The PINS notice was sent to TC 10.9. Staff will follow up.
- iii. ACCA, the Air Conditioning Contractors of America, announced the initiation of a new standard, BSR/ACCA 3 Manual S-200x, *Residential Equipment Selection (revision and redesignation of ANSI/ACCA 3 Manual S-2004)* in the April 3, 2009 edition of ANSI Standards Action. The PINS notice was sent to TC 9.5 and TC 4.1. Staff will follow up.
- iv. ACCA, the Air Conditioning Contractors of America, announced the initiation of a new standard, BSR/ACCA 2 Manual J-200x, *Residential Load Calculation (revision and redesignation of ANSI/ACCA Man J 2-2004)*, in the April 3, 2009 edition of ANSI Standards Action. The PINS notice was sent to TC 4.1. Staff will follow up.
- v. The Green Building Initiative announced the public review of BSR/GBI 01-200x, *Green Building Assessment Protocol for Commercial Buildings*, in the April 10, 2009 edition of ANSI Standards Action. The public review notice was sent to TG 1, TC 2.8, TRG 4, TC 6.7, TRG 7 SBOMC, TC 7.1, TC 7.3, TC 9.6, TC 9.7, SPC 189.1, SPC 105, SSPC 180, SPC 191 and SSPC 90.1. Staff will follow up.
- vi. IAPMO, the International Association of Plumbing and Mechanical Officials, announced the public review of BSR/IAPMO USEC 1-200x, *Uniform Solar Energy Code*, in the April 10, 2009 edition of ANSI Standards Action. The notice was sent to TC 6.7. Staff will follow up.
- vii. ASABE, the American Society of Agricultural and Biological Engineering, announced the public review of BSR/ASABE S612-200x, *Performing On-Farm Energy Audits*, in the April 24, 2009 edition of ANSI Standards Action. The notice was sent to TC 2.2 and TC 7.6. Staff will follow up.
- viii. NADCA, the National Air Duct Cleaners Association, announced the initiation of a new standard, BSR/NADCA ACR-200x, *Assessment, Cleaning and Restoration of HVAC Systems*, in the April 24, 2009 edition of ANSI Standards Action. The PINS notice was sent to TC 7.3 and SSPC 180. NADCA and ASHRAE are in discussions regarding potential overlap and/or conflict of this standard with ANSI/ASHRAE/ACCA Standard 180-2008, *Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems*. On May 21, 2009, ASHRAE sent a letter to NADCA regarding potential overlap of this proposed standard with ANSI/ASHRAE/ACCA Standard 180-2008, *Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems*. John Schulte, Executive Director of NADCA, indicated that he will contact ASHRAE in June regarding resolution of this issue. No further action has been taken by either ASHRAE or NADCA.

ACCA sent a similar letter to NADCA on May 20, 2009, regarding overlap of this standard with several ANSI/ACCA standards, including ANSI/ASHRAE/ACCA Standard 180-2008.

- ix. USGBC, the US Green Building Council, announced the public review of BSR/USGBC LEED™ ND-200x, *LEED™ for Neighborhood Development*, in the May 1, 2009 edition of ANSI Standards Action. The notice was sent to TG 1, TC 2.8, TRG 4, TC 6.7, TRG 7 *Tools for Sustainable Building Operations, Maintenance and Cost Analysis* (SBOMC), TC 7.1, SSPC 90.1, SSPC 90.1, SPC 189.1 and SPC 191. Staff will follow up.
- x. AIHA, the American Industrial Hygiene Association, announced the initiation of a new standard, BSR/AIHA Z9.10-200x, *Fundamentals Governing the Design and Operation of Dilution Ventilation Systems in Industrial Occupancies*, in the May 22, 2009 edition of ANSI Standards Action. The PINS notice was sent to SSPC 62.1, TC 4.3 and TC 5.8. Staff will follow up.
- xi. USGBC, the US Green Building Council, announced the initiation of a new standard, BSR/USGBC LEED™ EB O&M-200x, *LEED™ for Existing Buildings: Operation and Maintenance*, in the June 20, 2008 edition of ANSI Standards Action. The PINS notice was sent to several PC and TC chairs.

On July 18, 2008, ASHRAE sent a letter to USGBC regarding potential overlap of this standard with ANSI/ASHRAE/ACCA Standard 180, *Standard Practice for Inspection and Maintenance of Commercial HVAC Systems*.

ASHRAE, ACCA and USGBC representatives held a conference call on October 6, 2008, to discuss this issue. USGBC has taken no further action to resolve this with either ASHRAE or ACCA. The September 2008 draft has not been revised nor has USGBC announced an ANSI public review of this standard.

c. Canvass Method Standards

ASHRAE participates in the review of standards in the fields of HVAC&R developed by other American standards developers. ASHRAE participation is either solicited by the standards developer directly or prompted by staff review of ANSI Standards Action.

- i. AHAM, the Association of Home Appliance Manufacturers, announced the initiation of a new standard, BSR/AHAM PAC-1, *Portable Air Conditioners*, in the August 22, 2008 edition of ANSI Standards Action. The PINS notice was sent to TC 8.11, and ASHRAE has been included on the review panel for this standard. The standard has not yet been submitted to ASHRAE for review.
- ii. AMCA, the Air Movement and Control Association, announced the public review of BSR/AMCA 510-2004 (R200x), *Methods of Testing Heavy Duty Dampers for Rating* (reaffirmation of ANSI/AMCA 510-2004), in the October 24, 2008 edition of ANSI Standards Action. The public review notice was sent to TCs 5.2 and 5.8. On April 24, 2009, AMCA asked ASHRAE to participate in the review of this standard under the ANSI canvass method procedure for approval as an American National Standard. The standard and canvass ballot were sent to TC 5.8 for review, with a closing date of June 29, 2009.

d. Recent ISO TC and WG Meeting and Items of Interest

General

- i. ASHRAE hosted the ANSI ISO Forum (AIF) meeting in Atlanta on February 3, 2009, and an ISO training class on use of the ISO standard template on February 4-6, 2009.

ISO/TC 86 – Refrigeration and Air-Conditioning

- i. SC 1 is currently considering the addition of a new item titled *Refrigerating systems and heat pumps – Flexible pipe elements, vibration isolators, expansion joints and non-metallic tubes – Requirements, design and installation*, to its work programme. This proposed standard is based on EN 1736:2008. The ballot closes on July 22, 2009.
- ii. SC 4: New work item proposals for the revision of ISO 917:1989, *Refrigeration and air-conditioning – Testing and rating of refrigerant compressors*, and ISO 9309:1989, *Refrigerant compressors – Presentation of performance data*, were approved by SC 4, pending the commitment of five participating countries to form working groups for each item.
- iii. SC 6: ISO/DIS 5151, *Non-ducted air conditioners and heat pumps - Testing and rating for performance*, ISO/DIS 13253, *Ducted air-conditioners and air-to-air heat pumps -- Testing and rating for performance*, and ISO/DIS 15042, *Multiple split-system air-conditioners and air-to-air heat pumps -- Testing and rating for performance*, received approval from the ISO Technical Management Board for reinstatement and circulation as Final Draft International Standards.
- iv. SC 6: ISO/CD 19298, *Water chilling packages using the vapor compression cycle*, has been reinstated and will be circulated as a committee draft in late 2009 at a yet to be determined date. Once published, this standard may be considered for joint adoption by AHRI and ASHRAE to replace ARI 550/590 and ASHRAE 30.
- v. SC 6: ISO/WD 16345, *Water cooling towers – Testing and rating of thermal performance*, has been reinstated and will be circulated as a committee draft late 2009 at a yet to be determined date.
- vi. SC 6: ISO/CD 17533, *Room fan-coil units – Testing and rating for performance*, has been reinstated and will be circulated as a Draft International late 2009 at a yet to be determined date.
- vi. SC 7: CEN/TC 44 will take the lead, in cooperation with ISO/TC 86/SC 7, to amend ISO 23953-1, *Refrigerated display cabinets - Part 1: Vocabulary* and ISO 23953-2, *Refrigerated display cabinets - Part 2: Classification, requirements and test conditions*.
- vii. SC 8/WG 3 met in Chicago on January 22-23, 2009 to develop ISO 12810, *Fluorocarbon refrigerants – Specifications and test methods*, which will be based on ARI 700/700C.
- viii. SC 8: ISO 817, *Refrigerants – Designation and safety classification*, received approved by the ISO Technical Management Board for reinstatement and circulation as a Draft International Standard.

ISO/TC 142, Cleaning equipment for air and other gases

- i. ISO/FDIS 21220, *Particulate air filters for general ventilation -- Determination of the filtration performance*, failed the approval ballot and will be published as a Technical Specification.
- ii. ISO/TC 142/WG 9, *Particulate air filter intake systems for rotary machinery and stationary internal combustion engine*, intends to collaborate with ASHRAE SPC 199P on a standard for gas turbine air intake filters.
- iii. ISO/TC 142 has formed new task groups titled "*Performance testing of dust collectors*" (TG 13) and "*Sustainability of air cleaning equipment*" (TG 14).
- iv. Working Group 3, *General ventilation filters*, Task Group 2, *Air filters for residential applications*, Task Group 12, *UV-C devices*, and Task Group 13, *Performance testing of dust collectors*, will meet in Louisville in conjunction with the ASHRAE Annual conference.
- v. ISO/TC 142 will meet in Wiesbaden, Germany in October 2009 in conjunction with Filtech.

ISO/TC 180/SC 4 – Solar Energy – Systems – Thermal Performance, Reliability and Durability

- i. ISO/CD 9459-4, *System performance characterization by means of component tests and computer simulation*, has been circulated for committee review.
- ii. ISO/TC 180 and its subcommittees intend to meet in conjunction with the ISES conference in Johannesburg, South Africa, in October 2009.

ISO/TC 205 – Building Environment Design

- i. At the request of the ISO Technical Management Board, ISO/TC 205 and ISO/TC 163, *Thermal performance and energy use in the built environment*, have formed a Joint Working Group (JWG) to address international standards development in the area of energy performance of buildings.
- ii. ISO/CD 11368, *Energy performance of buildings - Methodology to assess the overall energy and environmental impact by using a holistic (complete) approach*, has been transferred to the ISO/TC 163-ISO/TC 205 JWG.
- iii. ISO/CD 16815, *Building environment design – Design and evaluation of indoor thermal environment*, has been approved for advancement to the DIS stage.
- iv. Working Group 4, *Indoor air quality*, is considering the development of standards covering IAQ in industrial premises and buildings and mechanical ventilation systems for residential apartments.
- v. WG 4 will meet on July 22-24, 2009 in Nice, France.
- vi. ISO/CD 16817, *Building environment design – Design process for visual environment*, is currently under committee review.
- vii. ISO/CD 11855-3, *Radiant heating and cooling systems - Part 3: Design and dimensioning*, and ISO/CD 11855-4, *Radiant heating and cooling systems - Part 4: Dynamic simulations for Thermo-Active-Building-Systems*, completed committee review and were approved for advancement to the DIS stage.
- viii. ISO/TC 205 established Working Group 9, *Heating and cooling systems*, to address "system conception and calculation methods for heating and cooling systems,

including renewable energy and cogeneration.” Two new work items for WG 9 are currently under consideration by ISO/TC 205: a) *Heating and cooling systems in buildings – Method for calculation of the system performance and system design – Heat pump systems*, and b) *Heating systems in buildings – Method for calculation of the system performance and system design – Combustion systems (boilers)*.

- ix. ISO/TAG 008 advises the ISO Technical Management Board on planning and priorities for standardization works in the field of building technology with a view to identify needs for standards and new fields of activity, and ensuring coordination and planning of the active TCs. A meeting of TAG 008 will be held in Geneva on October 5-6, 2009 to address the contributions of TCs 59, 163 and 205 to standardization work for the energy performance of buildings.
- x. ISO 16484-5:2007, *Building automation and control systems (BACS) – Part 5: Data communication protocol, Amendment 1:2009*, was published on May 15, 2009. ISO 16484-5 is a direct adoption of ANSI/ASHRAE Standard 135.
- xi. ISO 16484-6:2009, *Building automation and control systems (BACS) – Part 6: Data communication conformance testing, 2nd Edition*, was published on March 15, 2009. ISO 16484-6 is a direct adoption of ANSI/ASHRAE Standard 135.1.
- xii. ISO/TC 205 will meet in Kyoto, Japan on November 16-19, 2009.

SPCs and TCs considering the adoption of ISO standards / ASHRAE standards proposed as ISO standards

- i. AMCA, the lead organization for AMCA Standard 330/ASHRAE Standard 68, *Laboratory Method of Testing to Determine the Sound Power in a Duct*, intends to proceed with an identical adoption of ISO 5136, *Acoustics — Determination of sound power radiated into a duct by fans and other air-moving devices — In-duct method*, to replace the current AMCA 330-1997/ASHRAE 68-1997. The identical adoption would use the same designation as the current standard.
- ii. TC 5.1 voted to recommend that AMCA Standard 210/ASHRAE Standard 51, *Laboratory Methods of Testing Fans for Certified Aerodynamic Performance Rating*, be fast-tracked to become an ISO standard. The initial request for this came from AMCA and the US TAG to ISO/TC 117, Fans.

7. Status of MBOs – Appendix ST -B

- a. The Standards Committee MBOs have been updated as shown in the **Appendix ST-B**

8. Standards Items of Interest

- a. The Standards Committee approved the revision of the User's Manual to Standard 90.1-2007, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, in a vote of 14-0-3¹ as shown in the work statement in **Appendix ST-C** and that ASHRAE commit a maximum of \$30,000 in funding. SPLS and Standards Committee also approved the revision of the User's Manual with a maximum amount of ASHRAE funding not to exceed \$30,000. This was approved by Special Projects and Tech Council as well with the expectation that 80% of the funding of the revision would come from outside funds.

¹ Allan Fraser, Merle McBride and Frank Myers abstained because they are current or past members of the SSPC.

- b. SPLS and Standards Committee will review the work statement for 189.1 Users' Manual at a future conference call. SSPC 189.1 is reviewed the work statement and cost at its Wednesday meeting and estimated that the cost would be \$105,000. SPLS and Standards Committee will consider this via conference call. This was approved by Special Projects and Tech Council as well with the expectation that 80% of the funding of the revision would come from outside funds.

9. Revision Project Committee's Approved

- a. ANSI/ASHRAE Standard 20-1997 (RA2006), *Method of Testing for Rating Remote Mechanical-Draft Air-Cooled Refrigerant Condensers*
- b. ANSI/ASHRAE Standard 129 -1997 (RA 2002), *Measuring Air-Change Effectiveness*

10. CIS Information Items

- a. *ASHRAE proposals to the ICC*

The following ICC code proposals were submitted to the ICC in advance of the June 1, 2009 deadline:

Note: IECC stands for the International Energy Conservation Code, IMC stands for the International Mechanical Code, IRC standards for the International Residential Code, IBC stands for the International Building Code, IEBC stands for the International Existing Building Code.

IECC proposal 1: This code change proposal modifies the scope of the IECC to allow the use of the space-by-space method in 90.1-2007 when complying with other requirements in the IECC.

IECC proposal 2: This code change proposal adds the space-by-space method from 90.1-2007, including the lighting power density tables, to the IECC.

IECC proposal 3: This code change proposal adds cooling tower efficiency tables from addenda a, l, and ad to the IECC.

IECC proposal 4: This code change proposal adds IEER tables from addendum s to the IECC.

IECC proposal 5: This code change proposal adds transformer tables from addendum o to the IECC.

IMC proposal 1: This proposal brings the refrigerant table in the International Mechanical Code consistent with the published refrigerants to Standard 34.

IMC proposal 2: This proposal adds a reference that requires compliance with Standard 180 for maintenance of HVAC systems.

IMC proposal 3: This proposal adds a requirement for operational permit that can be obtained if maintenance is done in accordance with Standard 180.

IEBC proposal 1: This proposal adds a requirement that existing buildings perform inspection of maintenance of HVAC systems in accordance with Standard 180.

IRC proposal 1: This code change proposal adds whole house ventilation requirements from Standard 62.2-2007.

IRC proposal 2: This code change proposal modifies kitchen ventilation requirements so they are consistent with Standard 62.2-2007.

IRC proposal 3: This code change proposal modifies bathroom exhaust requirements so they are consistent with Standard 62.2-2007.

IRC proposal 4: This code change proposal modifies duct leakage requirements so they are consistent with Standard 62.2-2007.

IBC proposal 1: This code change proposal adds a new Informative Appendix to the International Building Code titled "HIGH-PERFORMANCE GREEN BUILDINGS". The Appendix proposes to reference Standard 189.1P *Standard for High-Performance Green Buildings Except Low-Rise Residential Buildings* as an optional requirement for jurisdictions that choose above code green building programs. If this Standard is not ANSI approved by the final action hearings, the proposal will be withdrawn.

b. *ASHRAE proposals to NFPA*

NFPA proposals are due July 31st. There will be a CIS conference call to consider proposals to NFPA 5000, NFPA 900, and NFPA 1. Potential proposals include an added reference to Standard 180, and reference updates to 90.1-2010 and 90.2-2010 from the 2007 versions.

c. *ASHRAE proposals to IAPMO*

IAPMO UMC: Proposals to the Uniform Mechanical Code are due February 2010 and will be considered by CIS at a later date.

IAPMO USEC: This is the Universal Solar Energy Code. A comment was submitted to update references to ASHRAE Standard 93-2003 *Methods of Testing to Determine the Thermal Performance of Solar Collectors* and ASHRAE Standard 95-81 RA *Thermal Testing of 32 Residential Solar Water Heating Systems*. These proposals were considered and approved by the Technical Committee at a meeting on June 7, 2009. The report on proposals will be published on 8/17/2009. The code will be published 11/19/2009

d. *Discussions related to Standard 55*

The application of thermal comfort in codes was discussed. It was reported that Standard 55 has created an informative appendix questionnaire that can assist an engineer with compliance. There is also a recently published sample occupancy survey in the standard. Members of SSPC 55 requested more specific questions from the codes community that can be addressed and answered by the thermal comfort experts.

e. *Discussions related to DOE code change proposal submissions to the IECC from 90.1 material*

CIS discussed the submission of 54 code change proposals to the IECC by the Department of Energy. These comments fell into four categories: editorial corrections, proposals from 90.1-2007 and published addenda, unique DOE proposals, and proposals created from addenda to 90.1-2007 that have not gone out for public review, and, in some instances, not approved by SSPC 90.1 or subcommittees of 90.1. The copyright policy and intellectual property implications were discussed. DOE did request copyright permission from ASHRAE on these proposals.

RESEARCH ADMINISTRATION COMMITTEE:

1. Strategic Issues for Council Consideration:

- USGBC – Develop a workable method for joint collaboration on research between ASHRAE and USGBC, including having a USGBC organizational liaison to RAC.
 - IIAR – rebuild a relationship with IIAR, including having an IIAR organizational liaison to RAC.
 - RAC Membership – Select incoming RAC members who both have the time to dedicate to fulfilling the RAC member responsibilities and have some kind of previous research experience, either having conducted research, contracted for research or participated in TC PESs/PMs. One way to address this may be to appoint more members who may not have as many other ASHRAE responsibilities.
 - Society Support for 2010-2015 Research Strategic Plan - RAC requests assistance from Tech Council in assuring that a forum is approved in Orlando for RAP to discuss the draft Research Strategic Plan. This is the last meeting before the final plan deadline. RAP's request for a forum in Chicago was denied
2. RAC awarded tentative research project 1409-TRP, "*Stability of Candidate Lubricants for CO2 Refrigeration*," to Spauschus Associates for a period of 12 months at a total cost to ASHRAE of \$46,200. **(Appendix RA-A)**
 3. RAC awarded tentative research project 1448-TRP, "*Ventilation Requirements for Refrigerating Machinery Rooms*," to CPP, Inc. for a period of 18 months at a total cost to ASHRAE of \$93,368. **(Appendix RA-B)**
 4. RAC awarded tentative research project 1507-TRP, "*Binary Refrigerant Flame Boundary Concentrations*" (*Re-bid*), to Safety Consulting Engineers, Inc. for a period of 12 months at a total cost to ASHRAE of \$87,500. **(Appendix RA-C)**
 5. RAC reviewed seven work statements and two were accepted as-is, four were conditionally accepted, and one was returned with comments. The conditionally accepted work statements will be released for bid once the responsible Research Liaison is satisfied that all approval conditions have been satisfied by the TC/TG or SSPC.
 6. RAC reviewed seven RTARs for addition to the Society's Research Implementation Plan and five were accepted, one was returned, and one was rejected. All RTARs that were reviewed will be returned to the sponsoring committee with specific feedback comments from RAC.
 7. The 2008-2009 Research Budget authorized the expenditure of \$2,668,100 for projects, New Investigator Award payments and Grants-In-Aid. The year began with obligations previously made for the year of \$1,837,420. During this fiscal year, fifteen new projects

totaling \$1,982,844 were started that resulted in \$567,824 in additional payments during FY 08-09. Total FY 08-09 expenditures for projects, New Investigator Award payments and Grants-In-Aid total to \$2,493,886 or \$174,214 (6%) below budget.

Current commitments for FY 09-10 total to \$1,689,117. If all 11 pending TRPs with contractor recommendations are under contract within the first quarter of FY 09-10, we will incur an estimated \$787,175 in additional commitments for the year for a total of \$2,476,292. If the two pending URPs with funding recommendations are also under contract in the first quarter of FY 09-10, we will incur an additional \$162,282 in commitments for a total of \$2,638,574. The draft FY 09-10 budget for projects, grants and awards is \$2,913,200,

8. RAC approved a funded extension in the amount of \$5,000 to active research project 1332-RP, *Revisions to the ASHRAE Thermal Comfort Tool to Maintain Consistency with Standard 55-2004*, in order to incorporate changes to the standard that have occurred since the contract was awarded.

TECHNICAL ACTIVITIES COMMITTEE:

1. Strategic Issues for Council Consideration:

- Technical Program Changes and Impact on TCs – CEC needs to continue to use TAC as a sounding board for their potential changes and gain constructive feedback from the perspective of the TCs. In particular, a policy on how to opt out of a seminar recording is required well in advance of the Orlando meeting.
- Opportunities for Collaboration – ASHRAE leadership should promote outreach and awareness at all levels of the Society to the following emerging outside organizations:
 - DOE - Advanced Research Projects Agency – Energy (ARPA-E)
 - GreenGrid
- The Society should try harder to respect the existing technical committee structure when responding to emerging technical issues or special projects – TC/TG/TRGs are given only meeting space twice a year, but they accomplish a great deal of work for research, handbook, certification, and program. Imagine what these select groups of volunteers could accomplish if given financial support for interim meetings, conference calls, and web meetings when necessary instead of forming a new committee.
- Society meeting mentor program – establish a mentor program for first-time Society meeting attendees, especially attendees from nations located outside of North America

2. In response to the Region-at-Large (RAL) referral from the Lebanese Chapter that the climatic weather zones for major cities in RAL countries be identified to allow proper application of ASHRAE Standard 90.1 and Standard 169, TAC member and SSPC 169 (weather data) chair, Dru Crawley, reported that no additional weather data currently exists for the RAL countries such as Lebanon and that RAL members should ask the metrological societies within their region to collect and report additional data.

3. With assistance from RAC, the final reports for the following completed research projects were sent to the leadership of the Lebanese chapter to address their referral for research to be done on the use of HCFC replacement refrigerants in high ambient condition areas:
 - 859-RP, *Capacity and Power Demand of Unitary Air Conditioners and Heat Pumps under Extreme Temperatures and Humidity Conditions* - 1997
 - 1173-RP, *Improvement and Validation of Unitary Air Conditioners and Heat Pump Simulation Models for R-22 and HFC Alternatives at Off-Design Conditions* – 2008
 - CEC-500-2008-056, *Energy Performance of Hot, Dry Optimized Air-Conditioning Systems*, July 2008, Sponsored by the State of California Energy Commission.
4. TAC has completed the consumer brochure on selecting and maintaining residential HVAC equipment in response to Tech Council Action Item #12 and a request from Pub/ED Council and after attempting to address almost 100 review comments from various members (**Appendix TA-A**).
5. TC 7.5 – Smart Building Systems identified the following three TC members to serve as informal ASHRAE representatives to Gridweek as requested by the Tech Council Chair
 - Katipamula Srinivas, PNL
 - Carlos Haiad, SCE,
 - David Holmberg, NIST
6. TAC is considering forming a new Technical Resource Group (TRG) on cold climates to address a recent referral from Region XI (Manitoba Chapter – Motion 2) to create a cold climate design guide. The roster and previous work of TG4.CCD – *Cold Climate Design*, which was disbanded in 1995, will be reviewed first.
7. The following ideas that were developed by BOD ExCom to respond to Strategy 3.4 (Provide tools for chapters to become focus for education & community outreach) have been assigned to the TCs noted below for further action:
 - Develop a research project to document the performance of high performance buildings over time. Assigned to TC 7.3 – *Operation and Maintenance Management*
 - Develop a guideline (or special pub) explaining in layman terms system features used in high performance buildings (target audience: owners and operating personnel) that chapters can use for outreach. Assigned to TC 7.8 – *Owning and Operating Costs*
 - Develop a guideline (or special pub) to show that an Integrated Building Design process needs to include required maintenance procedures for high performance building systems that chapters can use for outreach. Assigned to TC 7.1 – *Integrated Building Design* with support from TC 7.6 – *Systems Energy Utilization* and TC 7.9 – *Building Commissioning*
8. In December 2008, ASHRAE TG3 - HVAC Contractors and Design Build Firms - surveyed ASHRAE members in the Contractor (approx. 5300 members) and Design Build (approx. 2475 members) membership categories to determine how to better support this segment of the Society.

Based on the survey results, TG3 developed a set of recommendations (**Appendix TA-B**) that they suggest be distributed to the following groups along with the survey results for further consideration and action :

- Chapter Technology Transfer Committee Chairs
 - Chapter Presidents
 - Society Chapter Technology Transfer Committee (CTTC)
 - Society Conference & Exposition Committee (CEC)
 - Certification Committee
 - Electronic Communications Committee
 - The Project Committees for the following ASHRAE Standards - 62.1, 90.1, 180, 189, and 189.2
 - ASHRAE Member Services Department
9. TRG 7.UFAD (Underfloor Air Distribution) met in Louisville on Wednesday to develop the current draft. A partial, rough draft of the revised design guide was initially developed and assembled for Salt Lake City. The initial deadline for a final draft was the Chicago meeting but this was extended with the TRG chair resigning effective 1/8/2009. Dan Int-Hout and Jim Megerson were since appointed as co-chairs. The committee is once again making progress towards completing a final draft. The TRG sponsored a seminar in Louisville with four presentations from design guide authors.
10. TC 9.6 – Healthcare Facilities is starting work on an update to the special publication *ASHRAE Hospital Design Guide*. The goals of this revision are as follows and will address previous referrals from Members Council for information on SARS and quarantine facilities:
1. Update references and body text to match reference.
 2. Include any new research
 3. Add many more “How-to” sections and give the manual more design recommendations
 4. Add User Guide for Std 170
 5. Add quarantine station stuff from TC 9.6 work
 6. Make corrections from previous edition
 7. Update energy conservation to new 90.1 standard, new 170 standard and new 2010 guidelines.
 8. Revise infection control section to include latest stuff.
11. TAC approved the change of TG8.Variable Refrigerant Flow, to a TC 8.7, Variable Refrigerant Flow.

REFRIGERATION COMMITTEE:

1. A new chapter on CO₂ for the Refrigeration volume of the ASHRAE Handbook was coordinated by a subcommittee of REF and TC 10.3 members. TC 10.3 will revise as appropriate and approve for inclusion in the 2010 volume of the Handbook.

2. In response to Action Item #8 from Technology Weekend, REF developed a Special Project proposal titled 'Guide for Sustainable Refrigerated Facilities and Systems'. REF approved this proposal and submitted it to the Special Projects subcommittee of Technology Council where it was approved contingent upon full outside funding.
3. The Milton W. Garland Refrigeration Award for Project Excellence was presented to Cesar Luis Lim at the Plenary Session.
4. The Comfort Cooling Award for Project Excellence was presented to Russell L. Heiken at the Plenary Session.
5. The inaugural George C. Briley Award for the best refrigeration-related article published in the ASHRAE Journal, was presented to Douglas Reindl and Todd Jekel at the Refrigeration Committee meeting.
6. REF received a letter from Greenpeace in which they affirmed their support of the Natural Refrigerants Position Document (PD). Kent Anderson, REF Vice-Chair, as well as ASHRAE staff in Washington D.C., have met with Greenpeace to discuss how they may help accomplish the goals stated in the PD, and other opportunities to work with ASHRAE.
7. REF will coordinate involvement in a possible Refrigeration Commissioning Guideline.
8. REF discussed input to Strategic Planning identifying the following issues or topics:
 - ASHRAE should strive to develop and disseminate technical information on HFO refrigerants, specifically to address when these new refrigerants are appropriate and when these are not appropriate for use.
 - ASHRAE should focus on a new dawn of refrigerants with vigorous and objective investigation of natural refrigerant use including research, program Journal articles, etc.
9. A final report on the 2008-2009 Society Year MBO's is included with this report as **Appendix RE-A**.

ENVIRONMENTAL HEALTH COMMITTEE:

1. Technology Council approved that the current chair of the Unvented Combustion Devices and Indoor Air Quality Position Document (PD) committee, Shelly Miller, be replaced by Richard Charles. Dr. Miller recently submitted her resignation.
2. The IAQ 2010 steering committee met in Louisville. IAQ 2010, *Airborne Infection Control – Ventilation, IAQ & Energy*, will take place November 10-12, 2010 in Kuala Lumpur, Malaysia. The committee has identified keynote speakers and topics, determined the various conference subthemes, and determined the venue. A Call for Abstracts will be issued in late July. Conference information is available at www.ashrae.org/iaq2010.
3. The third annual Environmental Health Award was presented to Barney Burroughs at the Plenary Session.
4. A review of the HVAC Applications Handbook for environmental health issues is underway and being coordinated by the EHC Handbook subcommittee chair.

5. EHC proposed to Research Advisory Panel (RAP) to add a goal of 'Airborne Infectious Disease Control' to their draft 2010-2015 Strategic Research Plan.
6. In response to Action Item #23 from Chicago, the Airborne Infectious Disease Position Document was approved by EHC and forwarded to the Operations Subcommittee of Technology Council prior to the Louisville meeting.
7. The Indoor Air Quality (IAQ) Position Document Committee (PDC) has met a number of times via web and conference calls and begun their work. A draft document is anticipated for the Winter meeting.
8. EHC approved co-sponsorship of the TC 9.3 research, *Role of HVAC Systems in the Transmission of Infectious Agents in Buildings and Intermodal Transportation*. This is the first research project from the multidisciplinary group aiming to study the influence of HVAC on infectious disease transmission in public spaces.
9. A final report on the 2008-2009 Society Year MBO's is included with this report as **Appendix EH-A**.

SPECIAL PROJECTS SUBCOMMITTEE:

1. Tech Council approved funding in the amount of \$21k (maximum) for the initiation of a new Regular Special Project for a Standard 189.1 Users Manual to be developed in 2010 in parallel with the completion of the standard. The total estimated cost of the manual is \$105,000.
2. Tech Council approved \$30k maximum funding for a new Regular Special Project for a Standard 90.1 Users Manual to be developed in 2010 in parallel with the completion of the standard. Outside funding is also expected. The total estimated cost of the manual is \$150,000.
3. Special Projects approved the initiation of a new Cooperative Special Project (SP 130) for Marketing Assessment on the impact of the 30% AEDG series.

DOE asked ASHRAE to conduct a market assessment of the impact of the 30% AEDG series. This would be a 6 month project and is needed so that DOE can determine to proceed with the development and funding of the 50% AEDG series. DOE has committed to funding the entire project and a contract for that funding is expected from them in July 2009.

4. Special Projects approved the initiation of a new Regular Special Project (SP 131) for a Guide for Sustainable Refrigerated Facilities and Systems, contingent upon full outside co-funding.

The Refrigeration Committee has identified a need for a guide on energy efficiency, sustainability and operations in refrigeration systems that effect at operating costs over the life cycle of the equipment. A number of funding sources have been identified and are expected to be willing to commit funding once the project has been approved by ASHRAE. Special Publications Committee (under Pub-Ed Council) also reviewed the proposal and communicated their support and endorsement of the project.

5. An executive summary and detailed report of the status of active special projects is shown in **Appendix SP-A**, Special Projects Report. Items of particular interest are summarized below.
6. SP 113 (Advanced Energy Design Guide for Highway Lodging) – The project is completed and the Guide is available for free download and hardcopy sale at the Louisville meeting.
7. SP 115 (Performance Measurement Protocols) – The document is undergoing final refinements and is expected to be approved for publication by the BPM Steering Committee in July 2009. The document will then be sent to ASHRAE Publications for final editing, layout, and printing. Final publication is expected in early fall 2009.
8. SP 118 (Energy Efficiency Guide for Existing Buildings – Business Case) – The document is completed and has been sent to ASHRAE Publications for final editing, layout, and printing. Final publication is expected in late summer 2009.
9. SP 125 (Energy Efficiency Guide for Existing Buildings – Technical Guide) – DOE has committed to fund this project and work will begin as soon as a contract has been signed for that funding.
10. SP 200 (Indoor Air Quality Guide) – The document is completed and has been sent to ASHRAE Publications for final editing, layout, and printing. Final publication is targeted for October 30, 2009.

FUNCTIONAL/ FISCAL PLANNING SUBCOMMITTEES:

1. Functional Planning approved the revised Tech Council MOP. Technology Council restructured its subcommittees. There will now be one planning subcommittee that will address the planning needs of the council including budgets. This operation was previously done by two committees – Fiscal and Functional Planning. Operations Subcommittee will now review revisions to MOPS, Rules of the Board, etc. that relate to Technology Council and the Standing Committees and Subcommittees that report to Tech Council as well as review Standing Committee MBOs. The Document Review Subcommittee will now review position documents as well as other various Society documents as needed and will typically meet via conference call or web cast. All the detailed operations of these subcommittees were moved into the Tech Council Reference Manual. The revised Tech Council MOP has been sent to Society Rules Committee for review and approval.
2. Functional Planning reviewed and updated the Tech Council Assignments from Planning Documents as shown in **Appendix FP-A**.
3. Functional Planning discussed strategic planning input. An action item was assigned to all Standing Committees to look at strategic issues at the Society level and at the Council at their next meeting and report them to Planning at Tech Weekend. It was discussed that there is a communication break down between TCs and CEC in determining what TCs needed and what would be a benefit to TCs. It was also suggested that when the Council is considering a position document that the cognizant TCs be included in the review process before the document is approved. There were also concerns expressed regarding ASHRAE's relationship with USGBC and if ASHRAE was receiving the same benefits as

USGBC does. It was also suggested that perhaps ASHRAE needs to look at ways to supplement LEED.

4. Fiscal discussed the issue that there will be a need to find funding for the Standard 90.1 and Standard 189.1 User's Manual. Standards Committee also presented a request for funding to make improvements and fixes to the Standard Online Comment Database.

OPERATIONS SUBCOMMITTEE:

1. Costas Balaras, Dave Knebel, and Kay Thrasher provided a thorough summary of issues the BOD is currently discussing.
2. A majority of the meeting time was dedicated to activity reports the standing committee chairs. Operations Subcommittee members agreed during their January 2009 Operations Subcommittee meeting that this is a good use of the meeting time because it provides an opportunity for all the Tech Council standing committee chairs to learn about the activities of the other committees and to identify opportunities for collaboration. Per the request of Andy Persily, Technology Council Chair, all standing committees discussed strategic directions and formulated recommendations for ASHRAE leadership consider related to Tech Council activities. A partial list of these directions follows.

ASHRAE leadership should address:

Standards

- Targets/goals for consensus documents – provide clear direction to establish targets/goals for standards development
- Energy performance gaps – Identify and develop tools to evaluate energy performance gaps to set attainable performance goals for new and revised standards
- Balance between energy and sustainability – provide guidance regarding whether ASHRAE emphasis should be on energy or sustainability and develop descriptions of how energy and sustainable relate and differ
- Increased ASHRAE focus on specific areas – provide guidance on which areas ASHRAE should focus its attention to support/lead industry interests (e.g., radon air quality, building labeling, process/manufacturing/industrial sector, persistent building performance)
- ASHRAE's international role – investigate "how to" become more influential globally at the level ASHRAE is influential in North America (especially in the U.S.)

EHC

- Balancing IAQ with energy efficiency – support a focus to maintain good indoor air quality as aggressive measures are taken to reduce building energy consumption
- Risk management for air and water quality – support efforts to evaluate and develop guidance for risk management of air and water quality and defining unsafe air and water

Refrigeration

- Natural refrigerants – meet industry interest in natural refrigerants by providing documentation on opportunities and guidance for how to take advantage of those opportunities. Support ASHRAE research activities related to natural refrigerants.

3. The status of Position Documents can be found in **Appendix OS-A**.

BUILDING PERFORMANCE METRICS STEERING COMMITTEE:

The Building Performance Metrics Steering Committee met in Louisville on Sunday, June 21, 2009. The following activities and plans took place during this meeting:

1. The membership of the Steering Committee is being revised due to the non-attendance, non-activity by some of the current voting members. A revised roster will be developed and submitted to the Technology Council after receipt of responses from the targeted organizations/individuals that were felt necessary for this Steering Committee.
2. Performance Metrics Protocols (SP 115) – Jeff Haberl
 - The organization of the document is to have an introductory chapter explaining each of the areas to be covered, a chapter with a summary table of all the metrics detailed in the report, a chapter with all the Level 1 protocols for each covered area, and finally a separate chapter for each area with that area’s Level 2 and Level 3 protocols.
 - The areas covered are: Energy, Water, Thermal Comfort, IAQ, Lighting/Daylighting, and Acoustics.
 - One area of controversy during the development of the Special Publication was the IAQ measurement protocols. There is a great divergence of opinion among the experts. The final document will attempt to balance the approach across those opinions. An additional panel of IAQ reviewers was identified: Andy Persily, Hoy Bohanon, and Barney Burroughs. These experts will be asked to review the IAQ section one more time and provide feedback. In addition, Hal Levin will submit his comments.
 - A European perspective would be helpful. Therefore, additional CEN/ISO documents will be referenced in the final document
 - A letter ballot will be sent to the 10 voting members of the Steering Committee (only 6 voting members were in attendance at the meeting) after the above editing and review. The revised document will be re-sent to the Steering Committee with the letter ballot.
 - The target for completion of the review and editing work is July 15, 2009.
 - Additional charges to the Project Committee:
 - Develop a PowerPoint program for Chapter presentations on the new “Performance Metrics Protocols for Commercial Buildings” Special Publication.
 - Develop with the appropriate TCs, a research proposal for applying the various levels of Performance Metrics Protocols to the ASHRAE Headquarters building.
 - Develop an “updated” version of the Special Publication in SI Units for European applications/distribution (6 month time frame)
 - The Project Committee will provide ‘Continuous Maintenance’ of the Special Publications.
 - The intent is to seek taking the IP Special Publication to a possible ANSI Guideline and the SI Special Publication to a Technical Specification status for the European Market (a suggested sequence of becoming an ultimate ISO Standard).

- The Project Committee has been tasked with determining what would be required for developing performance metrics for residential buildings.
3. Performance-based Energy Benchmarks (SP 123) – Hermans
 - There were some errors in the data that was reported in the report to the BPM SC. Michael Deru will work with Hermans to make the necessary corrections to the report.
 - It was suggested that this effort needs to be more fully integrated into the ABEL efforts.
 - It was strongly suggested that ASHRAE allocate the necessary resources to this PC so as to ensure that the review of the energy models is completed. A team of people should be assembled to review this information and funding should be provided to allow that team to have face-to-face meetings, if necessary, to do the reviews.
 - The objectives for this Project Committee for this year are:
 - Correct any errors in the reported data,
 - Once the EUIs are published, begin a campaign to promote the information,
 - Publish the Energy Performance Benchmarks for commercial buildings on the ASHRAE web-site,
 - With the appropriate TCs, develop a research proposal for the review and verification of any benchmark determination calculations.
 4. Carbon Emissions Calculation Tool (SP 119) – Levin
 - There have been no new developments since the ASHRAE meeting in Salt Lake City.
 - DOE will provide funding to NREL to create a tool that addresses most of the issues raised by the workshop study conducted under this project last year. NREL's objective is to develop the data that can be used in a carbon calculation tool. In addition, the goal is to create an easily updatable method that would, ideally, be updated every year or two.
 - The funding is expected to be awarded in August/September, 2009. Future funding for updates would not be guaranteed.
 - The first step in the project is for NREL to prepare a scope and propose a method and put that out to experts for feedback. Additional feedback would be solicited throughout the project. It is going to be requested of DOE that NREL include the Carbon Emissions PC members in their listing of "experts" that review/provide oversight of their work.
 - There is a need for a standard for GHG calculations for buildings, but it may need to start at even a more simplified level than what is being suggested by DOE/NREL.
 - ASHRAE's role in this subject is extremely important and may primarily be the body that identifies the limitations in the process. It is the opinion of the PC that ASHRAE should have a more formal role as an advisory body to the NREL efforts.
 - The Carbon Emissions Calculation Tool PC will produce a revised roster of members and create a new set of objectives for the Project Committee. These will be submitted to the Special Projects Subcommittee with the proposed scope and roster along with a request to have the PC re-initiated as SP 119.
 5. High Performance Building Database/DASH (SP 129) – Hunn/Traugott
 - This is a joint project between ASHRAE and GBA out of Pittsburgh.
 - The intent is for this to become a meta-database that would bring together, via links, a number of other databases that already exist for a variety of reasons and to then pull out summary data and statistics that relate to high performance buildings from those databases.

- The DASH consortium has four working groups that have been created and meeting over the last year-
 - Clearinghouse – Level & detail of existing databases
 - Market/Outreach – Use & display of data; Identification of organizations that should be added to consortium
 - Protocols/Metrics – Identification of the performance protocols and benchmarks for high-performance buildings
 - Repository – Determination of scope, architecture, and operation of the DASH database including fee and data anonymity issues
 - A consulting firm out of Pittsburgh (Wellspring) with funding from the state of PA has contracted with the DASH Consortium to create a business plan at no charge. The final plan is expected to be completed in the fall. The activities of the project will depend upon the results of the business plan.
6. Other Items
- ASHRAE Building Energy Labeling – The BPM SC will seek to have a representative involved in the implementation process of the bEQ.
 - Support of Research Plan Strategic Goal #1 - RAC has created a set of strategic goals for the future. The first of these goals (*Maximize actual operational energy performance of buildings and facilities*) relates to the work under the guidance of the BPM SC.

BUILDING INFORMATION MODELING COMMITTEE:

The following is a report on the status of projects being undertaken by the BIM Steering Committee (BIM SC) of Technology Council and the schedule for completion of the projects.

Of a general nature the subcommittee has not conducted any conference call meetings since the ASHRAE Winter Meeting in January. It is the plan of the BIM SC to meet by conference call quarterly in the interim to face to face meetings. A “standard” call time will be determined moving forward.

Projects are in response to three core activity areas established by the BIM SC, which are as follows, and are supported by a set of MBOs that support each of these areas:

1. Educate members on BIM and related matters as they affect ASHRAE interests
2. Represent the society in general where needed with outside interests
3. Identify who is doing what directly or indirectly within ASHRAE related to BIM and getting that activity integrated within the Society through the BIM Steering Committee

The tables at the end of this report show the activities being undertaken, the schedule and the status as of June 20, 2009.

The BIM Steering Committee approved the final draft (pending changes noted in the draft) of the *Introduction to BIM: a Guide for ASHRAE Members* on Saturday June 20 (7-0-0, CV) and recommends that Tech Council approve the Guide for publication and electronic dissemination (via the ASHRAE web site).

The recommended BIM Steering Committee membership for Society year 2009-2010 is shown below:

Chris Wilkins, Chair
 Dennis Knight, Vice Chair
 Chip Barnaby, GPC 20P & TC 4.1 Representative
 Chuck Gullledge, TC 7.1 Representative
 Stephen Hagan, US General Services Administration
 Rob Hitchcock, TC 1.5 Representative
 Arto Kiviniemi, EU Representative
 Steven Rosen, EYP
 Mark Palmer, TC 1.6 Representative
 TBD, TC 4.2 Representative
 TBD, TC 4.7 Representative
 ASHRAE Staff Liaison: Lilas Pratt

BIM Steering Committee Activity Update:

Education of members

Activity	Schedule	Status
Publication in the ASHRAE Journal of three BIM-related articles	September, 2008 January, 2009 June, 2009	Completed: Three articles undertaken by TC 7.1 were published in September 2008, January 2009, and June 2009. Future: An additional article to be drafted by Stephen Rosen (SC member) that will address data exchange between BIM and energy analysis software.
Publication of a BIM Guide for ASHRAE members	July 2009	Current: Final draft approved for publication by SC members. SC will recommend to Tech Council the approval and publication of the final document.
Development of Power Point presentation on BIM with instructor notes	July 2009	Completed: Initial thoughts on format, target audience and length. Current: Nothing drafted to date as the availability of the BIM Guide needed to be completed first. Future: This activity will now be initiated since the BIM Guide is undergoing approved for publication and distribution.
Educational programs at Society meetings	January 2009 June 2009	Complete: Four Seminars were held at the January meeting in Chicago. Seminar 28 "Real World BIM for the HVAC Engineer" conducted by TC 1.5 at June meeting in Louisville. Future: Seminar on how to take BIM beyond design and into O&M and the systems manuals has been suggested.
Enhance Distinguished Lecturer (DL) List with additional speakers on BIM	June 2009	Complete: Dennis Knight nominated and appointed to the DL list. Future: SC will evaluate how much this DL

Activity	Schedule	Status
		is requested before looking to add more DLs to the list.
Web conference on BIM	TBD	Current: No action to date. Requires availability of PPT noted above. Future: Will remain on hold pending a review of the interest in the DL.
Communications with TCs and others related to coordination of BIM-related research projects	December 2008	Completed: A one page plan describing the concept of coordinating BIM-related research and developing a BIM-related strategic plan for research was prepared provided to RAC. Future: The one page plan to be reviewed for relevance to the current RAC strategic plan and then would be available to include with a communication to the TCs in conjunction with RAC for implementation.

Representation of ASHRAE to external BIM-related initiatives

Activity	Schedule	Status
Identify organizations with whom ASHRAE should have some involvement	November 2008	Complete: Organizations identified are. <ul style="list-style-type: none"> ▪ Construction Specification Institute (CSI) ▪ Open Geospatial Consortium (OGC) ▪ buildingSMART Alliance ▪ American Institute of Architects (AIA) ▪ Associated General Contractors of America (AGC) Future: Ashrae will work through buildingSMART Alliance to interface with additional organizations.
Do an environmental scan on organizations identified and determine the appropriate level of involvement needed with each and who is best equipped to be the ASHRAE point of contact (POC) with them.	January 2009	Complete: Organizations listed above identified and representatives named. Future: Outside organizations need to be included in a matrix of activity to how that fits in with ASHRAE's interests and needs.
Assign POCs as necessary and initiate contact and work with them.	Ongoing beginning in January 2009	Complete: Representatives named are. <ul style="list-style-type: none"> ▪ CSI – Chuck Gullede ▪ OGC – Mark Palmer ▪ buildingSMART Alliance – Chris Wilkins ▪ AIA – Markku Allison Future: TBD
Establish an ftp site or server where an environmental scan of each organization and be presented and POCs can enter information on their work with each organization.	Ongoing beginning in January 2009	Current: Exploring with ASHRAE staff the web tools available for dissemination of information within the SC and the Society. Future: TBD

Coordination of ASHRAE initiatives related to BIM

Activity	Schedule	Status
Identify ASHRAE committees and	October 2008	Completed: Initial identification of TCs and

Activity	Schedule	Status
other entities within ASHRAE that would have some involvement with or logical interest in BIM.		other committees.
Assign a liaison from the subcommittee to each entity	On-going	Completed: Existing SC members already represent a number of TCs including: Future: Additional liaisons to be identified as new committees are identified.
Identify what each entity identified is doing and develop a high level environmental scan of their BIM-related activities. Develop suggested collaborative actions with each entity and initiate communications with them concerning those actions. Continue collaborative efforts and report on the results of those efforts	TBD	Current: SC liaisons report activity at each meeting of the SC as appropriate. Future: A matrix to be created to map out what is being done now within the various TCs that have an interest and/or connection to BIM, to determine how those activities are interrelated, and to identify what needs to be done moving forward to help coordinate and steer that activity.

BIM Liaisons and Outside Representatives

Internal ASHRAE Liaisons		
TC 1.5	Computer Applications	Rob Hitchcock
TC 1.6	Terminology	TBD
TC 4.1	Load Calculation Data and Procedures	Chip Barnaby
TC 4.2	Climatic Information	TBD
TC 4.7	Energy Calculations	TBD
TC 7.1	Integrated Building Design	Chuck Gullledge
GPC 20P	XML Definitions for HVAC&R	Chip Barnaby

External Organization Representatives		
CSI	Construction Specification Institute	Chuck Gullledge
OGC	Open Geospatial Consortium	Mark Palmer
	buildingSMART Alliance	Chris Wilkins
AIA	American Institute of Architects	Markku Allison
AGC	Associated General Contractors of America	TBD

Date

Tom Watson, Chair

**Publishing & Education Council (PEC)
Information Item Report to the BOD
Louisville KY, June 2009**

Fiscal Planning Subcommittee

Fiscal Planning Subcommittee authorized Mr. Comstock to proceed with publication of the BIM Guide in any way which he believed would generate income for the Society. The path to be pursued will be through advertising either in conjunction with ASHRAE Journal publication or through downloading on the ASHRAE website with banner advertising.

Mr. Fields reported that the Board of Directors had approved \$200,000 to improve the online bookstore and this would be an important project for the Council's volunteers and staff in the coming year.

Fiscal Planning Subcommittee discussed opportunities for promoting Self Directed Learning (SDL) course use by chapters by changing the branding of the product to Chapter Learning Courses or Group Learning Courses. Mr. Comstock was given an action item to determine current individual & groups sales of SDLs.

Fiscal Planning Subcommittee noted the need to report digital circulation of ASHRAE magazines to maintain qualified circulation.

Research Journal Subcommittee

As of May 2009, there are 395 subscribers to the print edition of HVAC&R Research, 90 online only subscribers and 25 IP address access subscribers. Total subscription income compared to last year increased largely due to the increase in IP address access subscribers. Overall subscription numbers are 23% less than a year ago, however, some variation is due to the renewal cycle. The subcommittee will continue to monitor subscription levels.

Research Journal Subcommittee voted to authorize Messrs. Radermacher and Comstock to meet with representatives of commercial publishers to investigate their interest in joint publication of HVAC&R Research. If a suitable business plan can be developed. It will be the intent of the subcommittee to act on a recommendation prior to the January meeting so that the publication partnership can begin in January 2010.

Research Journal Subcommittee assigned an action item to Mr. Comstock to investigate interest by Wiley and Springer in publication of HVAC&R Research.

Research Journal Subcommittee approved the nomination of Chandra Sekhar, Ph.D., to a three year term beginning July 1, 2009, and the reappointment of Bjarne Olesen, Ph.D., to a three year term beginning July 1, 2009.

eLearning Subcommittee

Elsevier reported the following information to the eLearning Subcommittee:

Gross Revenues

2006	\$187,000	
2007	\$351,000	88% growth
2008	\$512,000	46% growth
2009 <i>projected</i>	\$664,000	30% growth

Course Status

Course	Launch	# of Modules	PDH
HVAC Systems	April '06	13	35

Fundamentals of Controls	Jan '08	12	47
DDC Controls	Apr '08	3	12.5
Standard 90.1	Oct '07	15	29
Standard 62.1	May '08	15	29
Standard 90.1 for Architects	Nov '07	18	18
ASHRAE Library	Oct '07	--	--
25+ short courses	Various	25+	Various
Fundamentals of Refrigeration	Oct '08	6	9
Refrigeration Equipment	Nov '08	6	11.5
AC System Design Manual	Jan '09	16	24.5
Advanced Energy Design for Small Retail	Nov '08	7	8
Advanced Energy Design for Small Office	Jan '09	7	7.5
25+ short courses	Various	25+	Various
Sustainable Buildings & High Performance Systems Design	Feb '09	8	31
Equipment Load Trends & Planning for the Future	June '09	3	4
Thermal Guidelines for Data Processing Equipment	June '09	3	2.5
High Performance Library for LEED	May '09	--	--
Refrigeration Applications	Dec '09	6	TBD
Fundamentals of Electricity	July '09	2	TBD
Building Electrical System Design	July '09	3	TBD
Building Electrical Energy	July '09	2	TBD
Strategies & Infrastructure for Liquid Cooling of Equipment & Facilities	July '09	5	TBD
Datacom 101: Datacom Facilities Basics	Oct '09	12	TBD

Sales Summary

Product	Launch date	% of total sales
ASHRAE Library	Sept '07	38%
HVAC Systems	Apr '06	22%
Standard 90.1	Nov '07	6.50%
HVAC Controls	Jan '08	6.30%
GREENGUIDE	Feb '09	5.80%
AC System Design Manual	Jan '09	4.80%
Fund of Refrigeration	Oct '08	4.30%
Standard 62.1	May '08	3.40%
DDC Controls	Apr '08	2.20%
AEDG (Small Office and Small Retail)	Nov & Jan '09	2.20%
All others		4.50%

eLearning Subcommittee discussed the website improvements & the next development phase:

- Updating courses for Standards 90.1 and 62.1.
- Publishing derivative works of standard courses (“90.1 Hands on”).
- Bundling smaller libraries at lower price points.
- Changing product development to capitalize on market opportunities to increase revenue.
- Create original content for eLearning.
- eLearning team develops product briefs for newly identified products.
- Making product briefs available to registered eLearning customers to aid in content development generate early sales and marketing leads.

Certification Committee

The Certification Committee continues to communicate with the Professional Development Committee (PDC) and the eLearning Subcommittee of PEC regarding topics covered in certification programs that are not already covered in ASHRAE courses.

The Certification Committee continues to work toward making ASHRAE's certification programs as "international" as possible. The committee is investigating ways to localize certification examination content in a manner that meets local needs and retains the quality, statistical integrity, and legal defensibility of the examinations.

The Certification Committee continues to actively solicit ideas for new certification programs from TAC TCs and individuals.

The Certification Committee voted to approve the development of a new certification program for Energy Modelers. A subcommittee to oversee the development of this program has been formed and will determine whether the program will be ready to launch January 2010.

The Certification Committee continues to discuss alternative approaches to the development and administration of ASHRAE certification programs, such as, recognizing certification programs from other organizations and designing courses specifically to prepare for ASHRAE certification examinations.

Reports on Certification Programs:

Healthcare Facility Design (Liaison: Billy Austin; Chair: Rick Hermans)

The Healthcare Facility Design Professional (HFDP) program launched in June 2007. The examination is now available via computer at testing centers worldwide. As of June 17, 2009, there are 276 applicants for the examination with 214 individuals earning the HFDP certification. The HFDP program and examination are in the process of being updated. Individuals who had earned the HFDP certification as of March 31, 2009 have been invited to participate in the exam revision to earn 5 credits toward HFDP certification renewal.

High Performance Building Design (Liaison: Tim Wentz; Chair: Brian Lynch)

The High-Performance Building Design Professional (HBDP) program launched in June 2008. The examination is now available via computer at testing centers worldwide. The program was developed in collaboration with IESNA, MCAA, USGBC and GBI. As of June 17, 2009, there are 206 registrants and 111 individuals have earned HBDP certification.

Operations & Performance Management (Liaison: Martin Weiland; Chair: Richard Rooley)

The Operations & Performance Management Professional (OPMP) program launched in January 2009. The examination is now available on computer at testing centers worldwide. The program was developed in collaboration with APPA and GSA. As of June 10, 2009, there have been 80 registrants and 51 individuals have earned OPMP certification.

Commissioning Process Management (Liaison: Amy Musser; Chair: David Underwood)

The Commissioning Process Management Professional (CPMP) program will be launched June 24, 2009 in Louisville, KY. The program was designed for individuals who manage the commissioning process on behalf of building owners, who communicate with the commissioning provider/authority/agent, the commissioning team, staff and others. The program was developed in collaboration with BCA, IESNA, MCAA, NEBB, SMACNA, TABB, and University of Wisconsin-Madison. There were 119 registrants.

Energy Modeling (Liaison: Amy Musser; Chair: Amy Musser)

The energy modeling subcommittee has been formed to start building the preliminary outline of topics that will be used as the basis of the program's Detailed Content Outline. ASHRAE has received support from IBPSA-USA, TC 4.7-*Energy Calculations*, IESNA, and ASHE.

Electronic Communications Committee (ECC)

ECC successfully created and demonstrated a **recorded Webinar** that will further ASHRAE communications and society training goals. The recorded Webinar was created for the purpose of providing ASHRAE TC Website Training using existing graphical WYSIWYG (What you see is what you get) public domain software tools. The recorded file is available for viewing at: <http://media.ashrae.biz/webinar/TrainingWebinar.wmv>. Best practices and training from this effort will be rolled out to the ASHRAE webinar page similar to the www.ashrae.org/emeeting page with the help of ASHRAE staff.

President Harrison and ECC announced the availability of free electronic meeting technology for ASHRAE groups. Ten web based GoToMeeting licenses allow members worldwide the ability to conduct web meetings with video, 24/7, without cost to members. ECC will be promoting and continuing to encourage use of e-meetings as a way to conduct effective meetings at a much lower cost and environmental impact.

ECC reviewed and rated Regional websites and worked with DRC's to upgrade sites using best practice sharing.

ECC produced a white paper on the use and benefits of using Google Groups.

Before the January 2010 meeting ECC intends to:

- Rollout Google Groups implementations for ASHRAE TCs.
- Demonstrate GotoMeetings & best practices to a wider audience including TCs, chapters & regions.
- Produce a white paper on room server methodology for sharing documents during ASHRAE meetings.
- Work with CTTC & staff on a potential plan to minimize webinar/satellite broadcasts without impacting quality or number of attendees.
- Investigate Event Registration for regions & chapters.

Historical Committee

Historical Committee's Reference Manual is in the process of being revised.

Mr. Tse requested Historical Committee encourage Regional Historians to develop and document histories of their regions' birth and growth.

Historical Committee will solicit members outside the committee to submit "historical minutes" for inclusion into *Insights*.

The committee will conduct leadership recall interviews at the 2010 Orlando meeting. Kent Peterson, Bill Harrison have been suggested.

Due to budget constraints there have been no historical documents purchased for archiving, although Mr. Nagengast will continue to search for items of significant historical value to ASHRAE.

Historical Committee is developing a Transactions Session on "The History of Casino Design" at 2011 Las Vegas Winter Meeting for Sunday Afternoon.

Handbook Committee

The new Sustainability Chapter from TC 2.8 has been published in the 2009 *Fundamentals*.

Handbook Committee reassigned the chapter on Odors in *Fundamentals* from TC 2.3 to TC 2.1 at the request of 2.3 (as agreed by both TCs).

The new chapter on CO2 refrigeration is on track to appear in the 2010 *Refrigeration*.

The July 2009 revision of the Authors and Revisers Guide (ARG) will include a request that TCs include information on retrofitting in their chapters as applicable.

Handbook Committee approved a request to split the chapter on Automobiles and Mass Transit in *HVAC Applications* into two separate chapters beginning in 2011.

Handbook Committee assigned development of a new chapter on variable refrigerant flow (VRF) to TG8.VRF. The chapter is scheduled to appear in 2012 *HVAC Systems and Equipment*.

To facilitate more effective and time-efficient liaison communication, the committee voted to request rooms in Orlando for volume subcommittee's liaisons to meet with that volume's TC Handbook subcommittee chairs.

Handbook Committee plans to submit programs for the Orlando and Albuquerque conferences to highlight aspects of the Handbook Online and changes in 2010 *Refrigeration*, respectively.

Professional Development Committee

The Spring 2009 Online Seminar Series had 460 registrations, a 36% increase over Spring 2008. The 2009 average was a 2% increase over 2008.

There were 722 registrants at the 2009 Winter Meeting, a 23% decrease over the 2008 Winter Meeting. The 2009 average was a 14% increase over 2008.

At the 2009 Annual Meeting there were 135 registrants, a 26% increase over the 2008 Annual Meeting. The 2009 average was a 26% increase over 2008.

ASHRAE Learning Institute (ALI) has supported 11 chapter programs this year, including programs in Kuwait, Dubai and Mexico, reaching 400 individuals. Additional chapter programs are scheduled and in negotiation for 2009-2010.

Eight in-company seminars have been presented this fiscal year, reaching 200 people. Additional in-company programs are either scheduled or in negotiation for 2009-10.

More than 200 attended 6 ALI seminars were presented at four non-ASHRAE industry meetings.

Publications Committee

Publications Committee has identified eight publications which are in important need for updating or revision. Mr. Fields accepted an action item to convey the need to update these publications to Technology Council.

Publications Committee approved the concept for a new publication, *Design Guide for Sustainable Refrigerated Facilities and Systems*, intended to encompass refrigerated storage spaces and associated refrigeration systems of all sizes. The guide would be the result of a proposed Special Project submitted under the sponsorship of the Refrigeration Committee, TC 10.1, & TC 10.5.

Publications Committee gave the following list of special publications completed since June 2008:

JANUARY 2009

- Chicago preprints
- Chicago conference CD
- Standard 90.1-2007 SI edition
- Standard 135-2008

- Chicago Conference Program
- 62.1-2007 Spanish edition
- January RJ
- Hot and Humid Guide, 2nd ed.
- DOAS papers collection (pdf only)

FEBRUARY 2009

- Standard 90.1-2007 Addenda Supplement

MARCH 2009

- Standards and Guidelines CD
- Essential Standards CD
- March RJ
- Standard 137-2009
- Standard 149-2000 (RA 2009)
- Standard 87.2-2009
- Chicago seminar recordings
- Standard 29-2009
- Best Practices for Datacom Facility Energy Efficiency, 2nd ed.
- Design Considerations for Datacom Equipment Centers, 2nd ed.
- Weather Data Viewer CD, version 4.0
- Guideline 29-2009

APRIL 2009

- Thermal Guidelines for Data Processing Environments, 2nd ed.
- Standard 138-2009
- Standard 160-2009
- May RJ
- Standard 154-2003, Spanish edition

MAY 2009

- Chicago Transactions
- Guideline 12-2000, Spanish edition

JUNE 2009

- Particulate and Gaseous Contamination in Datacom Environments
- Louisville preprints
- Louisville Conference CD
- IAQ satellite broadcast
- Louisville conference program
- Advanced Energy Design Guide for Highway Lodging