



MINUTES
ASHRAE PROFESSIONAL DEVELOPMENT COMMITTEE
June 26, 2017
Long Beach, CA

MEMBERS PRESENT:

Jim Bochat, Chair
Kay Thrasher, VC/Planning
Charlie Henck, VC/Operations
Fred Betz
Tim Dwyer
Lindsey King
Tyler Lewis
Keith Reihl
Rob Risley
Jeremy Smith
Vincent Tse
Bill McQuade, BOD ExO
Walid Chakroun, Coordinating Officer

MEMBERS ABSENT

Hank Bagheri

STAFF PRESENT:

Karen Murray, Staff Liaison
Steve Comstock, Director
Sarah Boyle, Managing Editor

VISITORS:

Melissa Arnold
Billy Austin
Darryl Boyce
Michael Brandemuehl
Don Brandt
Vanita Gupta
Nathan Hart
Cameron Labunski
Walter Law
Farhan Mehboob
John Nix
Aakash Patel
Samir Traboulsi
Edward Tsui
Jim Vallort
Dennis Wessel

I. CALL TO ORDER

Mr. Bochat called the meeting to order at 8:00am.

II. ASHRAE CODE OF ETHICS

Mr. Bochat stated the meeting would be held in strict compliance with the ASHRAE Code of Ethics.

III. REVIEW OF AGENDA

The following Items were added to the agenda:

- Approval of January 30, 2017 Meeting Minutes
- CTTC Education Survey
- ASHRAE Marketing Report
- ASHRAE Certification Report
- Approval of Courses for the 2018 Winter Conference
- Vote on Proposal to Develop a 3-hour *Understanding and Designing Chilled Beam Systems* course. (Ken Loudermilk)
- Motion to Change ROB Scope and Purpose
- Motion to Change ROB General Requirements

APPROVAL OF JANUARY 30, 2017 MEETING MINUTES

Mr. Reihl moved and Mr. Betz seconded approval of Minutes from the January 30, 2017 meeting without change. Motion passed unanimously (CNV). Minutes posted on PDC page, ASHRAE Website.

IV. BOARD ExO REPORT

Mr. McQuade reviewed the ASHRAE Update-ExO Report. He emphasized that nominations for new Standing Committee members are due by mid-September. He encouraged the recommendation of new members to the PDC.

V. FINANCIAL REPORT

Mr. Comstock reviewed the PDC financial statement. He reported overall publications and education forecasts to be under budget. Revenues and expenses are both down.

VI. STAFF REPORT/UPDATE**A. 2017 Winter Conference**

20 courses; 1,161 registrations – Avg. 58 per course
27% increase in registrations compared to courses at the Orlando Conference.

B. 2016-17 In-Company/Chapter Programs**In-company**

25 courses; 882 registrations – Avg. 35 per course
67% increase in courses; 36% increase in registrations compared to last year

Chapter Programs

8 courses; 405 registrations – Avg. 51 per course

11% decrease in courses; 6% decrease in registrations compared to last year

C. 2017 Online Courses

14 courses; 207 registrations – Avg. 15 per course

11% decrease in courses; 6% decrease in registrations compared to last year (spring)

D. 2017 Annual Conference

FINAL 10 courses; 233 registrations – Avg. 23 per course

9% increase in registrations compared to courses at the St. Louis Conference

E. 2016 Fall Online Courses

12 courses/239 attendees – Avg. 20 per course

20% increase in courses; 9% increase in registrations compared to last year (fall)

F. 2016-17 Courses at Other Industry Events (For this info, update and use the spreadsheet.)

3 courses/29 attendees – Avg. 10 per course

50% decrease in courses; 77% decrease in registrations compared to last year

G. 2016-17 HVAC Design Training

Level I Essentials - 15 courses/631 attendees – Avg. 42 per course

6% decrease in courses; 19% decrease in registrations compared to last year

Level II Applications - 13 courses/383 attendees – Avg. 29 per course

Same number of courses; 14% decrease in registrations compared to last year

IEBO - 2 courses/49 attendees – Avg. 25 per course

0 course held last year

Total HVAC Design courses through June 30, 2017:

Level I Essentials: 58 courses/2,765 attendees – Avg. 48 per course

Level II Applications 42 courses/1,550 attendees – Avg. 37 per course

IEBO - 2 courses/49 attendees – Avg. 25 per course

CTTC EDUCATION SURVEY

Mr. Hart and Mr. Mehboob discussed results of a recent CTTC survey to ASHRAE chapters on education. The survey concluded that nearly 50% of the chapters that responded were not aware of or had not used ASHRAE Learning Institute (ALI) courses. Cost was the highest ranking response for why chapters had not used ALI. It was noted that many companies, members and potential members in developing countries want to use ALI training but find the costs prohibitive. As such, they tend to develop their own training. The CTTC suggested lower cost educational and training to local chapters, particularly the smaller chapters and those in developing nations. Suggestions include developing pricing formulas to expose how costs are established and allow the chapters to see how selected changes could save costs.

PDC acknowledged the need for accessible ASHRAE training with potentially more relevant pricing points. Ms. Murray added that the typical cost proposal for an ALI course itemizes cost options for easy selection. It was also noted that a regional training center in Dubai would soon open to provide regular training in the Middle East and North Africa regions. Similar centers in other areas may follow.

The committee then opened the conversation, seeking ideas to better increase chapter awareness of ALI and deliver training content to the global communities. Suggestions included:

- Shorter online courses
- Providing technical courses at the CRCs
- Train-the-trainer programs for smaller chapters

PDC will continue to explore ways to keep ALI course opportunities on the chapter radar.

ACTION 1: PDC to work with the PDC ExO and appropriate staff to develop methodologies to potentially further reduce chapter course pricing.

ASHRAE MARKETING

Ms. Gupta, ASHRAE Director of Marketing, provided an overview of ASHRAE marketing responsibilities including work on the new ASHRAE Website. She asked for feedback from the committee on how to better promote ASHRAE Learning Institute (ALI). PDC responded with concerns that many ASHRAE members are not familiar with the new ALI. The committee requested marketing help to better define the ALI purpose, products and availability. The need to rebrand ALI was further discussed. Ms. Gupta acknowledged the request and agreed to work with Ms. Murray to better market ALI.

Committee member suggestions for the new Website included:

- Improving search functionality
- Improving infrastructure
- Creating an education course matrix
- Ensuring mobile and tablet responsive
- Better IP recognition
- Inclusion of YEA social media newsletter

ASHRAE CERTIFICATION REPORT

Mr. Labunski announced the proposal of a new HVAC Designer Certification pending PEC and Board approval. He emphasized the importance of PDC and Certification cross-promoting the certification to ensure success. Keith Reihl volunteered to serve as liaison to the Certification Committee to keep both committee informed of related communications.

VII. CHAIR'S REPORT

A. Complete 2016-17 MBOs

B. Review of 2017-18 MBOs

Mr. Bochat led a review of the 2016-17 and 2017-18 MBOs. Revisions are noted in [Appendix A](#).

VIII. SUBCOMMITTEE REPORTS

A. Planning

Ms. Thrasher reviewed notes of the May 10, 2017 Planning Subcommittee meeting included in the meeting agenda.

B. Operations

Mr. Henck reviewed notes of the May 11, 2017 Operations Subcommittee meeting included in the meeting agenda.

IX. COURSE LIAISONS**A. Assignments**

Mr. Bochat emphasized PDC is responsible for monitoring ALL courses from proposal through development, revision and or sunset. The committee agreed to focus on the upcoming conference courses.

ACTION 2: Staff Liaison to distribute the list of liaisons assigned to the Chicago conference courses.

X. 2018 WINTER CONFERENCE COURSES

The PDC unanimously approved the slate of courses for the 2018 Winter Conference in Chicago. See [Appendix B](#).

PROPOSAL FOR NEW COURSE DEVELOPMENT

The Proposal submitted by Ken Loudermilk for development of a 3-hour course on chilled beam systems was reviewed.

Mr. Risley moved and Mr. Betz seconded approval of the 3-hour course titled *Understanding and Designing Chilled Beam Systems*. Motion passed unanimously (CNV).

XI. OLD BUSINESS**A. Review of Open Action Items**

Mr. Bochat led a review of Open Action Items. See [Appendix C](#) for updates.

XII. NEW BUSINESS**A. Clarification of PDC Responsibilities as noted in the Rules of the Board**

The committee expressed concerns that the focus of the committee does not fully encompass the duties and responsibilities outlined in the Rules of the Board. PDC will work with the PDC ExO and other members of the Publications and Education Council (PEC) as assigned to better define the duties and responsibilities with respect to coordinating ASHRAE training.

ACTION 3: Staff will provide a matrix of all ASHRAE course offerings as a coordination tool.

B. Motion to Change ROB Scope and Purpose**Motion to Change ROB General Requirements**

Motions were not presented for vote.

XIII. BRAINSTORMING**Foreign Language Courses**

Obstacles of course translations appear to include development costs, probable attendee counts and verification of the specific translation.

ACTION 4: PDC will define the process for course translations including methods of cost recovery and answers for members who seek foreign language courses.

XIV. COMMITTEE MEMBER/OFFICER ROTATION**A. Recognition of Outgoing Members**

Mr. Bochat recognized the outgoing committee members and thanked them for their contributions to the PDC. He then turned the meeting over to the 2017-18 PDC Chair, Ms. Kay Thrasher.

B. New Chair Welcome

Ms. Thrasher thanked Mr. Bochat for his work with the PDC and welcomed the new PDC members in attendance.

XV. NEXT MEETINGS

A. New Member Orientation

Ms. Thrasher announced the new member orientation would be scheduled this fall and she encouraged everyone to attend. She noted that subcommittee member assignments would be made prior to the orientation.

B. 2017 Fall Conference Calls

Ms. Thrasher announced the PDC subcommittees would continue to work independently by conference calls throughout the year. Calls would be initiated by the subcommittee chairs. In addition, a PDC conference call would be held mid-fall and -spring and again approximately 2 weeks prior to each face-to-face meeting.

XVI. ADJOURN

The meeting was adjourned at 12:00pm.

APPENDIX A – FINAL 2016-17 MBOs

Professional Development Committee

MBOs for Society Year 2016-17

Chair: Jim Bochat Date: June 27, 2016

Objective	SP	Completed by	Fiscal Impact	Responsible Party	Comment/Status
1. Develop a 5-year plan on developing young engineer training products that can reach a wider audience than just our design class	1C	June 2017	None	Full Committee	In Progress
2. Develop a standard guideline on the method to develop and produce courses.	2A	January or June 2017?	None	Planning Subcommittee	Complete
3. Develop outlines for additional practical applications courses to 'fill the gaps' in our current offerings.	3D	June 2017	None	Planning Subcommittee	In Progress
4. Develop a standard guideline on the method to develop, translate and produce courses to an international market	4?	January 2017	None	Full Committee	In progress. Case by case depending on need. Popular courses, value, need. Go to for a standard, defined answer.
5. Develop and launch two residential courses. <ul style="list-style-type: none"> • Course 1 • Course 2 	5A	January or June 2017?	None	Planning Subcommittee	Not feasible at the PDC. Turned over to RBC. Received one proposal from posted RFP. Proposal in review. Kay reached out to developer. No response. If no answer by LB, let it go. Action – Kay to again reach out to RBC
6. Develop training for use in university curriculum. <ul style="list-style-type: none"> • bEQ Task Force Prototype • Develop second course 	1C	June 2017	TBD	TBD	Ad hoc led by Michael Brandemuehl is developing the Building EQ prototype. Course expected to be available in fall 2017. Course info valuable on the Website
Additional Recommendations for Strategic Planning: None at this time					

2017-18 MBOs

ASHRAE Strategic Plan 2014 Initiatives addressed by Objective

Professional Development Committee

MBOs for Society Year 2017-18

Chair: Kay Thrasher Date: June 26, 2017

Objective	SP	Completed by	Fiscal Impact	Responsible Party	Comment/Status
1. Develop a 5-year plan on developing young engineer training products that can reach a wider audience than just our design class	1C	Jan 2018	None	Full Committee	In Progress
2. Develop outlines for three (3) additional practical applications courses to 'fill the gaps' in our current offerings.	3D	Jan 2018	None	Planning Subcommittee	New
3. Develop a standard guideline on the method to develop, translate and produce courses to an international market	4?	Jan 2018	None	Full Committee	Need an ASHRAE procedure to guide efforts.
4. Develop training for use in university curriculum. <ul style="list-style-type: none"> • bEQ Task Force Prototype • Develop second course 	1C	Jan 2018	TBD	TBD	Ad hoc led by Michael Brandemuehl is developing the Building EQ prototype. Course expected to be available in fall 2017. Course outline to be sent to the PDC.
5. Establish guidelines for liaison		Jan 2018	None	Operations Subcommittee	New
6. Every course reviewed by PDC Liaison prior to presentation– Quality check		Jan 2019	None	Operations Subcommittee	New
7. Improve marketing of courses/branding. Work with ASHRAE marketing for improvement		Jan 2018	TBD	Planning Subcommittee	New
Additional Recommendations for Strategic Planning: None at this time					

APPENDIX B – APPROVED 2018 WINTER CONFERENCE COURSES – CHICAGO

3-Hour Short Courses

Air-to-Air Energy Recovery Applications: Best Practices
ASHRAE Guideline 0 – The Commissioning Process
Complying with Standard 90.1-2016 Appendix G
Complying with Standard 90.1-2016: HVAC/Mechanical
Design of Affordable and Efficient Ground Source Heat Pump Systems
Designing High-Performance Healthcare HVAC Systems
Designing Toward Net-Zero Energy Commercial Buildings
Energy Management Best Practices
Fundamentals and Application of Standard 55
High-Performance Building Design: Applications & Future Trends
IT Equipment Design Evolution & Data Center Operation Optimization
Laboratory Design: The Basics and Beyond
New ASHRAE-Classified Refrigerants to Meet Society's Changing Needs
Successfully Managing the Risk of Legionellosis Using Standard 188-2015
Understanding and Designing Chilled Beam Systems
Variable Refrigerant Flow System Design & Applications

6-Hour Professional Development Seminars

The Commissioning Process in New & Existing Buildings
Complying with Standard 62.1-2016
Humidity Control: Principles & Applications
Optimizing Indoor Environment in Existing Buildings

APPENDIX C – ACTION ITEMSAction Items

Meeting of January 30, 2017 (Las Vegas)

<u>No.</u>	<u>Page</u>	<u>Responsible</u>	<u>Action</u>
1	4	Opns Subcmte	Review and update the PDC Reference Manual before the June meeting. ASHRAE Staff to make initial revisions. Will coordinate with Tim Dwyer. IN PROGRESS.
2	5	Ms. Thrasher	Contact the proposed developer of the Residential courses requesting the proposal be revised to include a more manageable scope and reduced cost. COMPLETE. Cost reduction unavailable.
3	5	Ms. Thrasher	Request input and new proposals for the Residential courses from the Residential Building Committee (RBC). COMPLETE. Turned over to RBC for further action.
4	5	Staff	Send the course proposal <i>Shaping Today's Built Environment – Tools from ASHRAE for Sustainable Building Operation</i> to the full PDC for review and vote to approve. COMPLETE.
5	5	Staff	Seek revisions to the <i>UFC 1-200-12 and ASHRAE Standard 189.1: High-Performance and Sustainable Building Requirements</i> course proposal from Dr. Lawrence before the next meeting. COMPLETE. Dr. Lawrence withdrew proposal with concerns of available government funding.
6	6	Staff	Notify appropriate TC s and instructors of the approved Sunset courses prior to the next meeting. COMPLETE. (See Status of PDC Approved Subcommittee Recommended Actions below)
7	7	Staff	Contact the relevant TCs and instructors to determine the appropriate plan of action for the listed courses and report results before the next meeting. COMPLETE. (See Status of PDC Approved Subcommittee Recommended Actions below)

Action Items

Meeting of June 27, 2016 (St. Louis)

<u>No.</u>	<u>Page</u>	<u>Responsible</u>	<u>Action</u>
4	5	Ms. Thrasher	Reach out to ExCom for potential locations for the HVAC Design: Level I – Essentials training. COMPLETE.
5	5	Staff	Explore how ALI PowerPoint slides can be added to the CTTC PPT and

reviewed by the PDC before release. Ms. Thrasher and Mr. Reihl agreed to review and edit as needed for CTTC use.
COMPLETE.

6 6 Staff Reach out to Al Veeck to discuss interest in the potential course.
Staff to contact Veeck before June meeting.
PDC announced Veeck has retired.
INCOMPLETE. Staff agreed to still try to reach Mr. Veeck.

7 7 Staff Terminate the remainder of the agreements with Mr. Hegberg to revise Heating Systems Self-Directed Learning (SDL) courses and compensate him accordingly
COMPLETE. Comstock to lead in further actions.

8 7 Staff Seek TC review of the Fundamentals of Water System Design and Fundamentals of Heating Systems Self-Directed Learning (SDL) courses to determine need for further revisions
Staff to submit work to TC before June meeting.
INCOMPLETE. Staff awaiting completion of Heating Systems SDL.

STATUS OF PDC APPROVED SUBCOMMITTEE RECOMMENDED ACTIONS

(Action Items 6 and 7 from the January 2017 meeting)

ACTION ITEM 6: Sunset the following courses with Staff Liaison to follow-up.

	<u>COURSE</u>	<u>STATUS</u>
1	Design of Ground Source Heat Pump Systems (SC)	Sunset Revised course with same title exists. (Steve Kavanaugh)
2	Electric Rates, Rules and Regulations (SC) Title changed to Maximizing Customer Benefits Using Key Electric Utility Products	Sunset
3	Maximizing Customer Benefits Using Key Electric Utility Products (SC) (formerly Electric Rates, Rules and Regulations)	Sunset
4	Commissioning for High-Performance Buildings (SC) (formerly Commissioning Process & Guideline 0)	Sunset
5	Commissioning Process & Guideline 0 (SC) (formerly replaced by Commissioning for High-Performance Buildings)	Sunset Revised course with same title exists. (Walter Grondzik)
6	Complying with Requirements of Standard 62.1-2007	Sunset
7	Complying with Standard 90.1-2007 (PDS)	Sunset
8	Complying with Standard 90.1-2007: Envelope/Lighting (SC)	Sunset
9	Seek PDC input. High registration, but is the course viable? Complying with Standard 90.1-2007: HVAC/Mechanical (SC)	Sunset

ACTION ITEM 7: Staff to contact the related TCs or instructors and respond to the subcommittee with a plan of action.

	<u>COURSE</u>	<u>ACTION PLAN</u>
1	Basics of Panel Heating & Cooling (SC)	Recommend further discussion. Is there a real market other than Northern US? Low registrations. Sunset or Revise? Birol Kilgis (instructor) indicated TC 6.5 would like to update the course. Last presented Winter 2010 (18 regs).

2	Determining Energy Savings from Performance Contracting (SC)	Recommend discussion. High registration, but is the course viable? Mark Stetz (instructor) would like to revise the course. Last presented Winter 2011 (110 regs).
3	Successful Solar Applications (SC)	Recommend revisions. Course may draw high interest. TC 6.7 Chair would like to revise and is seeking a TC member to help. Last presented Winter 2011 (58 regs).
4	Data Center Energy Efficiency (PDS)	Awaiting instructor input
5	Humidity Control: Applications, Control Levels, and Mold Avoidance (SC)	No further action needed. Revised with new title: Humidity Control II: Real-World Problems and Solutions. (Popular In-company course)
6	Humidity Control: Basic Principles, Loads and Equipment (SC)	No further action needed. Revised with new title: Humidity Control I: Design Tips and Traps
7	Humidity Control: Principles & Applications (PDS)	No further action needed. Revised with new title: Humidity Control I and II: Tips for HVAC Design and Practical Solutions to Existing Problems
8	Introduction to Cleanrooms (SC)	Recommend new course to align with new design guide. Wei Sun (author) will assist in finding someone to develop new course.
9	Low-Temperature Radiant Heating & High-Temperature Radiant Cooling Systems	Course will be Sunset
10	Significant Changes to Standard 90.1-2010 and IECC-2012	Recommend revisions and new title. Last presented Winter 2011(29 regs) Revenue share with ICC. New title: Energy Code Compliance: ASHRAE 90.1-2013 and IECC 2015. (IECC 2015 info was added to existing 90.1-2013 course for a previous company presentation.)