



## MINUTES

### ASHRAE PROFESSIONAL DEVELOPMENT COMMITTEE

January 30, 2017

Las Vegas, NV

#### **MEMBERS PRESENT:**

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

#### **STAFF PRESENT:**

Karen Murray, Staff Liaison  
Steve Comstock, Staff Director  
Ann Morris

#### **VISITORS:**

Don Brandt  
Nathan Hart  
John Nix  
Dennis Wessel  
Eric Yang

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### ACTION ITEMS

<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.
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.
3	5	Ms. Thrasher	Request input and new proposals for the Residential courses from the Residential Building Committee (RBC).
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.
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.
6	6	Staff	Notify appropriate TC s and instructors of the approved Sunset courses prior to the next meeting.
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.

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**I. CALL TO ORDER**

Mr. Bochat called the meeting to order at 8:07am.

**II. REVIEW AGENDA**

No changes noted.

**III. APPROVAL MINUTES FROM JUNE 27, 2016 MEETING**

Mr. Bochat called for motion to approve the June 27, 2016 meeting minutes without change. Mr. Betz moved and it was seconded. Motion passed unanimously (CNV). Minutes posted on PDC page, ASHRAE Website.

**IV. REVIEW OF ACTION ITEMS FROM MEETING JUNE 27, 2016  
(UPDATE)**

<u>No.</u>	<u>Page</u>	<u>Responsible</u>	<u>Action</u>
1	3	Staff	Send ExO report to the full committee. <a href="#">(Complete)</a> Sent with draft June 2016 meeting minutes.
2	3	Staff	Send PDC the list of reference materials recommended in preparing for each certification exam <a href="#">(Complete)</a> Sent December 29 with Action Item Status.
3	3	Staff	Label courses in ASHRAE conference promos and programs that may be helpful for certification exams and recertification <a href="#">(Complete/Continuous)</a> The following statement is included with each instructor-led course offered at the 2017 Winter Conference: <i>This ALI course/seminar may be a suitable resource to help prepare for a Certification exam or earn PDHs for recertification.</i>
4	5	Ms. Thrasher	Reach out to ExCom for potential locations for the HVAC Design: Level I – Essentials training. <a href="#">(Complete)</a>
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. <a href="#">Staff to draft PPT for review before next meeting.</a>
6	6	Staff	Reach out to Al Veeck to discuss interest in the potential courses. <a href="#">Staff to contact Mr. Veeck before next meeting.</a>
7	7	Staff	Terminate the remainder of the agreements with Mr. Hegberg to revise Heating Systems and Water System Self-Directed Learning (SDL) courses and compensate him accordingly. <a href="#">Mr. Hegberg was given April 3, 2017 as the final deadline for submission of the remaining SDL materials. If the deadline is not met, the termination clause in the agreements will be activated with no further payments due.</a>
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 seek TC review prior to June meeting.

**V. BOARD ExO REPORT**

Mr. McQuade shared the ASHRAE Update-ExO Report presentation with the committee.

**VI. CHAIR'S REPORT**

A. New subcommittee operating procedure with separate phone meetings

Mr. Bochat summarized his request that the Planning and Operations Subcommittees meet autonomously, with independent recommendations for action to the full Professional Development Committee.

B. Fine tuning subcommittee responsibilities (See Appendix A.)

Mr. Bochat reviewed and the committee agreed on the subcommittee responsibilities included in Appendix A.

**ACTION 1:** Operations Subcommittee to review and update the PDC Reference Manual before the June meeting.

**VII. FINANCIAL REPORT**

Mr. Comstock reviewed the PDC financial statements and provided a summary of how to navigate the information shown. He reported an expected increase in revenues based on increased conference course registrations. He again noted the success of the HVAC design training.

Staff Liaison's Note: Final Vegas course registrations - 1,172 Vegas 2017 vs. 1,040 Vegas 2011

**VIII. STAFF REPORT/UPDATE**

Ms. Murray provided the following ALL course summaries:

**A. 2016-17 In-Company/Chapter Programs**

To date, the number of in-company/chapter programs and attendance is about the same compared to 2015-16.

**B. 2016 Fall Online Course Series**

More fall online courses were offered in the 2016 series than in the 2015 series. (12 vs 10) However, the average number of attendees per course was lower in 2016 than 2015 (20 vs 22)

**C. 2017 Winter Conference Registrations**

To date - 20 courses/1,087 registrants (Avg 54 per course)

*2016 - 918 registrants (Avg 46 per course)*

Staff Liaison's Note: Final Vegas course registrations - 1,172 (Avg 59 per course)

**D. 2017 Online Course**

Online courses are now scheduled throughout the year rather than only in the spring and fall. 23 courses are confirmed for calendar year 2017.

**E. 2016-17 Courses at Industry Events**

To date - 4 courses/59 registrants

*2015-2016 – 6 courses/ 126 registrants*

**F. 2016/17 HVAC Design Training**

Total 2016/17 - 15 Level I, 12 Level II and 2 Improving Existing Building Operation

*Total 2015/16 - 16 Level I, 12 Level II and 0 Improving Existing Building Operation*

**IX. SUBCOMMITTEE BUSINESS**

**A. Planning**

Ms. Thrasher led a review of the January 9, 2017 Planning Subcommittee phone meeting. The following course proposals were discussed:

**Residential Courses in response to PRF (Robert Bean & David Butler)**

The subcommittee concluded that the proposed scope was far too extensive and the subsequent costs well above budget.

**ACTION 2:** Ms. Thrasher to contact the proposed course developer requesting the proposal be revised to include a more manageable scope and reduced cost.

**ACTION 3:** Ms. Thrasher to request input and new proposals from the Residential Building Committee (RBC).

**Consulting Engineering Essentials (Dennis Wessel)**

The subcommittee recommended PDC approve the proposed course with minor text edits. Mr. Bochat called for a motion to approve. The motion was unanimously approved. CNV.

**Shaping Today’s Built Environment – Tools from ASHRAE for Sustainable Building Operation (Hoy Bohanon)**

The subcommittee recommended PDC approval the proposed course once reviewed.

**ACTION 4:** Staff to send the proposal to the full PDC for review and vote to approve.

**UFC 1-200-12 and ASHRAE Standard 189.1: High-Performance and Sustainable Building Requirements (Tom Lawrence)**

The proposal is expected to be resubmitted with subcommittee recommendations.

**ACTION 5:** Staff to follow-up with Dr. Lawrence before the next meeting.

Ms. Thrasher noted that the subcommittee is proactively working to establish a list of potential new courses.

In addition, the subcommittee is working to recommend strategic partnerships.

**B. Operations**

Mr. Henck reviewed recommended actions from the January 11, 2017 Operations Subcommittee phone meeting.

The subcommittee recommended PDC vote to sunset the following courses with Staff Liaison to follow-up as noted:

1	Design of Ground Source Heat Pump Systems (SC)	Sunset (course replaced)	TC6.8
2	Electric Rates, Rules and Regulations (SC) Title changed to Maximizing Customer Benefits Using Key Electric Utility Products May 20, 2014	Sunset & discuss with TC & instructor (John Nix)	TC1.9

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3	Maximizing Customer Benefits Using Key Electric Utility Products (SC) (formerly Electric Rates, Rules and Regulations)	Sunset & discuss with TC & instructor (John Nix)	TC1.9
4	Commissioning for High-Performance Buildings (SC) (Replaces Commissioning Process & Guideline 0 )	Sunset & notify instructor	TC7.9
5	Commissioning Process & Guideline 0 (SC) (replaced by Commissioning for High-Performance Buildings)	Sunset & notify TC and instructor	TC7.9
6	Complying with Requirements of Standard 62.1-2007	Sunset & notify TC and instructor	
7	Complying with Standard 90.1-2007 (PDS)	Sunset & notify TC and instructor	
8	Complying with Standard 90.1-2007: Envelope/Lighting (SC)	Sunset & notify TC and instructor	
9	Complying with Standard 90.1-2007: HVAC/Mechanical (SC)	Sunset & notify TC and instructor	

Mr. Bochat called for a motion to approve sunset of the listed courses with Staff Liaison to follow-up as noted. The motion was unanimously approved. CNV.

**ACTION 6:** Staff to notify appropriate TC s and instructors of the Sunset courses.

Mr. Henck reported that upon discussion with the appropriate TCs and instructors, the following courses would be kept, revised or sunset.

1	Basics of Panel Heating & Cooling (SC)	Discuss potential revisions with instructor and TC.	TC6.5
2	Determining Energy Savings from Performance Contracting (SC)	Discuss potential revisions with instructor and TC.	
3	Successful Solar Applications (SC)	Discuss potential revisions with TC. (Author unavailable)	TC6.7
4	Data Center Energy Efficiency (PDS)	Discuss potential sunset with Instructors.	TC9.9
5	Humidity Control: Applications, Control Levels, and Mold Avoidance (SC)	Keep, Revise or Sunset - Discuss with instructor.	TC1.12
6	Humidity Control: Basic Principles, Loads and Equipment (SC)	Keep, Revise or Sunset - Discuss with instructor.	TC1.12
7	Humidity Control: Principles & Applications (PDS)	Keep, Revise or Sunset - Discuss with instructor.	TC1.12
8	Introduction to Clean Rooms (SC)	Revise or Sunset? Discuss with TC.	TC9.11
9	Low-Temperature Radiant Heating & High-Temperature Radiant Cooling systems	Revise or Sunset? Discuss with instructor and TC.	RHEVA

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10	Significant Changes to Standard 90.1-2010 and IECC-2012	Revise with new standards? Discuss with instructor.	
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**ACTION 7:** Staff to contact the relevant TCs and instructors to determine the appropriate plan of action for the above listed courses and report results before the next meeting.

**X. MBO PROGRESS**

Mr. Bochat led a review of the 2017/17 MBOs. (See [Appendix B.](#))

**XI. OLD BUSINESS**

**A. RFP for new Residential Course**

Reported in Item IX.A.

**B. Review of Outstanding Course Proposals**

Reported in Item IX.A.

**C. Committee Member Recommendations**

Mr. Bochat encouraged current PDC members to let the PDC Chair or Staff Liaison know any time they have a new committee member recommendation.

**D. Review of Open Action Items**

Discussed earlier.

**XII. NEW BUSINESS**

**A. Development of Consulting Engineering Essentials Course**

Reported in Item IX.A.

**B. Develop New Pre-Packaged Courses Using the Building EQ Course Prototype** (See [Appendix C](#) for suggested topics.)

**C. Reports from PDC Members who attended ALI courses in Las Vegas**

No report.

**XIII. NEXT MEETING**

Mr. Bochat reviewed noted Action Items and announced the full committee would meet by conference call in April.

**XIV. ADJOURN**

The meeting was adjourned at 12:00pm.

**APPENDIX A –Subcommittee Responsibilities**

**SUBCOMMITTEE RESPONSIBILITIES (Revised 1/30/2017)**

**Planning Subcommittee Responsibilities [Planning points us in a direction]**

- Develop and implement strategic objectives and maintain the list of MBO's
- Maintain a list of potential future courses and projects
- Select courses for future development
  - Coordinate course requests from Chapters, PEC/BOD or TC's
  - Communicate with TC's for course requests and development
  - Review new course proposals
  - Prioritize recommendations based on need and success criteria
  - Manage communication with proposers concerning course selection
- Recommend proposals, proposers and budgets to be presented to full committee for approval
- Approve staff created SOW & RFP
- Approve or develop course structure, outline and budget for handoff to Operations
- Recommend course development and rejections to the full committee for approval
- Explore strategic partnerships
- Review and maintain the PDC Manual of Procedures
- Assist staff in planning for course presentations and marketing of courses

**Operations Subcommittee Responsibilities [Operations gets us there]**

- Manage course development
- Manage communications with course developers and instructors
- Oversee review and revision of existing courses
- Oversee selection of course reviewers and presenters
- Appoint committee members as course liaisons
- Monitor the success of existing courses using course liaisons
  - Recommend changes, or sunset of courses
- Provide a Liaison with CTTC
- Review and maintain the PDC Reference Manual

**Full Committee**

- Approve recommended revisions to the PDC & Manual of Procedures and Reference Manual
- Approve recommendations from Planning Subcommittee
- Approve recommendations from Operations Subcommittee



**APPENDIX B – 2016-17 MBOs**

**Professional Development Committee**

MBOs for Society Year 2016-17

Chair: Jim Bochat    Date: June 27, 2016

<b>Objective</b>	<b>SP</b>	<b>Completed by</b>	<b>Fiscal Impact</b>	<b>Responsible Party</b>	<b>Comment/Status</b>
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	Not started
5. Develop and launch two residential courses. <ul style="list-style-type: none"> <li>• Course 1</li> <li>• Course 2</li> </ul>	5A	January or June 2017?	None	Planning Subcommittee	Received one proposal from posted RFP. Proposal in review.
6. Develop training for use in university curriculum. <ul style="list-style-type: none"> <li>• bEQ Task Force Prototype</li> <li>• Develop second course</li> </ul>	1C	June 2017	TBD	TBD	Ad hoc led by Michael Brandemuehl is developing the Building EQ prototype to meet the Vegas rollout deadline.
<b>Additional Recommendations for Strategic Planning:</b> None at this time					

ASHRAE Strategic Plan 2014 Initiatives addressed by Objective

**APPENDIX C – New Pre-Packaged Course Topics** (using the Building EQ Course Prototype)

**Q7 If you have interest in ASHRAE-provided course packages, what topic appeals to you the most? (Check one)**

<b>Answer Choices</b>	<b>Responses</b>	
Integrated building design	15.15%	10
Mechanical system design fundamentals	43.94%	29
Building operation	1.52%	1
Building system controls	15.15%	10
Sustainable building design and technology	16.67%	11
Indoor environmental quality	7.58%	5
<b>Total</b>		<b>66</b>