MINUTES
ASHRAE TRAINING AND EDUCATION COMMITTEE
January 21, 2021

MEMBERS PRESENT:
Jeremy Smith, Chair
Keith Reihl, VC/Planning
Jim Vallort, VC/Operations
Jason Alphonso
Jesse Fisher
Michael Langton
Cheng Wee Leong
David Meredith
Kim Pierson
Terry Schroeder
Andrew Sneed
Randy Schrecengost, ExO
Bill Dean, Coordinating Officer

STAFF PRESENT:
Karen Murray, Staff Liaison
Mark Owen
David Soltis
Eunice Njeru
Susan Polite

VISITORS:
Don Brandt
Art Halstrom
Bill Klock
Karine Leblanc
Vikram Murthy

ACTION ITEMS

<table>
<thead>
<tr>
<th>No.</th>
<th>Page</th>
<th>Responsible</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>Staff Liaison</td>
<td>Post the PPT to Basecamp</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>TEC Chair</td>
<td>Assign a liaison to the eLearning course work.</td>
</tr>
</tbody>
</table>
Minutes TEC Winter Meeting
January 21, 2021

3  4  Staff Liaison  Define the process and timetable for budget forecasts.

4  4  Staff Liaison  Compare free ALI and GTC course registrations to paid registrations to determine how many who attended a free course registered and paid for a later course.

5  4  Staff Liaison  Post committee assignments to Basecamp.

6  4  Staff Liaison  Post the list of Action Items on Basecamp.

7  4  Mr. Smith/ Ms. Murray  Update the TEC Reference Manual and repost to Basecamp for review before the next committee meeting.

8  5  Mr. Smith  Reach out to the Evansville Chapter for more details and explanation of existing availability.

9  5  Mr. Hallstrom  Provide TEC with an example created for the DOAS course.

10  5  Operations Subcmte  Examine how to create a relational database, potentially using keywords as a search option.

11  5  Course Liaisons  Review assigned courses prior to March 30 to identify topics and key words to link the course to others.

12  6  Staff Liaison  Add the list(s) of courses showing the assigned liaisons to Basecamp along with the reporting template.

13  6  Mr. Vallort  Create a timeline for posting participant and TEC Liaisons course reviews to Basecamp.

14  6  Ms. Pierson  Send a summary of the YEA program to Ms. Schroeder for review.

I. CALL TO ORDER
Mr. Smith called the meeting to order at 9:00 a.m.

II. INTRODUCTIONS
Members and guests acknowledged attendance.

III. ASHRAE CODE OF ETHICS
Mr. Smith reminded everyone that the meeting would be held in compliance with the ASHRAE Code of Ethics and Core Values.
Code of Ethics: https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics
Core Values: https://www.ashrae.org/about/ashrae-s-core-values
IV. REVIEW AGENDA
No changes to the agenda were noted.

V. APPROVAL MINUTES FROM JUNE 11, 2020 MEETING
Mr. Reihl moved and Mr. Alphonso seconded approval of Minutes of the June 11, 2020 virtual meeting. Motion passed unanimously (CNV). Minutes posted on TEC page, ASHRAE Website.

VI. BOARD ExO REPORT
Mr. Schrecengost provided an overview of the ASHRAE Leadership Presentation. He reminded the group that nominations for new committee members are due by mid-February and encouraged current members to submit recommendations to the TEC chair. He further reviewed the financial impacts of the pandemic on the Society business. Mr. Schrecengost introduced the ASHRAE Diversity Task Group and encouraged members to provide comments to the observed survey link. He credited the Epidemic Task Force for making ASHRAE a recognized provider of COVID-19 related resources, and then highlighted ASHRAE Membership & Communities, Research and Foundation Support, Government Affairs, Professional Development, Publications and Standards, and other ASHRAE resources. The presentation is available on Basecamp.

ACTION 1: Staff Liaison to post the PPT to Basecamp.

VII. CHAIR’S REPORT
A. REVIEW OF OPEN ACTION ITEMS
Mr. Smith reviewed the open actions. Updates are included in Appendix A.

B. MBO PROGRESS
Mr. Smith led discussion of the current MBOs. Updates are included in Appendix B.

The status of eLearning courses was discussed in the Open Action Items and the MBO Progress reports. Ms. Njeru was asked if the eLearning courses should be included in a review process like the current ALI courses. Ms. Njeru reported the eLearning courses are undergoing extensive revisions. To date, seven of the courses have been revised. She stated that a review process is in place and the committee was not needed for review. It was later recommended that a TEC Liaison be assigned to eLearning as an added resource.

ACTION 2: TEC Chair to assign a liaison to the eLearning coursework.

VIII. FINANCIAL REPORT
Ms. Murray reported combined year-to-date revenue is lower than last year, due in part to no face-to-face conference courses or HVAC Design training. She reported a significant increase in demand for online courses. Online Instructor-led, eLearning and In-Company/Chapter budgets are expected to exceed projected revenue. The Self-Directed Learning (SDL) budget is steady but lower than expected. The HVAC Design Training and Global Training Center budgets are expected to align with forecasts since release of the virtual training schedules.

ACTION 3: Staff Liaison will define the process and timetable for budget forecasts.
IX. **STAFF REPORT**
Ms. Murray compared year-to-date course registrations to those from previous years. She noted the increase in online course registrants in addition to nearly 4,000 more that registered for the free SARS-CoV-2 related webinars. The complete report is included in Appendix C.

ACTION 4: Staff Liaison to compare free ALI and GTC course registrations to paid registrations to determine how many who attended a free course registered and paid for a later course.

X. **SUBCOMMITTEE REPORTS**

A. **PLANNING**
Mr. Reihl reported the Planning Subcommittee will meet in March.

B. **OPERATIONS**
Mr. Vallort reported the Operations Committee will meet in February.

ACTION 5: Staff Liaison will post committee assignments to Basecamp.
ACTION 6: Staff Liaison will post the list of Action Items on Basecamp.

XI. **OLD BUSINESS**

A. **PEC RESTRUCTURE**
Mr. Smith reported the new Publishing and Education Council structure is in place. The TEC Standing Committee reports to the Professional Development Subcommittee of the Council.

B. **PDC REFERENCE MANUAL**
Ms. Murray reported that a draft version of the previous PDC Reference Manual was posted to Basecamp. She agreed to revise the language to reflect the new Training & Education Committee and post a new copy for committee review. A recommendation was made to add course definitions to the revised manual.

ACTION 7: Mr. Smith will work with Ms. Murray to update the TEC Reference Manual and repost it to Basecamp for review before the next committee meeting.

C. **NEW COMMITTEE MEMBER RECOMMENDATIONS**
Mr. Smith referenced Mr. Schrecengost report and encouraged committee members to nominate new members they believe would bring value to the committee. Recommendations should be sent to Jeremy Smith and/or Karen Murray.

XII. **NEW BUSINESS**

A. **PEAC ASHRAE Pathway**
The Publishing and Education Council (PEC) was tasked by the President-Elect Advisory Committee (PEAC) to develop and implement a career path, tentatively entitled “ASHRAE Pathways.” The program would encourage ASHRAE membership and engagement in training and certification by providing designers, contractors, and manufacturer’s representatives new to the industry with a path to enhance their professional and technical skills.

Mr. Klock gave a broad summary of the initiative. The first phase, HVAC Foundation, will focus on training in basic HVAC knowledge. To complete the phase participants must meet
Criteria 1: specified academic requirements; completion of the HVAC Design Level I and II training, or attain the ASHRAE Certified HVAC Designer Certification. Participants must then meet Criteria 2: a minimum of 30 credit hours from a list of relevant offerings.

Implementation of HVAC Foundation Pathways will be complete by July 1, 2021. It will serve as a template for development of future Pathways.

Mr. Vallort agreed to serve as the TEC Liaison to the project.

A. PEC REFERRAL
Mr. Smith led a review of the motion from Members Council “That Society expand the eLearning Corporate training program to be used by ASHRAE chapters beginning January 2021.” It was determined that a program already exists for chapters to purchase eLearning courses at a discounted rate.

ACTION 8: Mr. Smith will reach out to the Evansville Chapter for more details and explanation of existing availability.

B. AFFINITY CHART
Mr. Hallstrom reintroduced the idea of establishing an affinity chart to link course topics taught by different instructors, creating a data friendly procedure to ensure all instructors are aware of changes made to a linked topic that may affect their specific course. This will allow instructors to reference the most accurate information. Course liaisons were asked to review their assigned courses for key words that may help determine if/how their course relates to others.

ACTION 9: Mr. Hallstrom to provide TEC with an example created for the DOAS course.

ACTION 10: Operations Subcommittee to examine how to create a relational database, potentially using keywords as an easy search option.

ACTION 11: TEC Liaisons to review assigned courses prior to March 3 to identify topics and key words to link the course to others.

C. GLOBAL TRAINING CENTER COURSE AVAILABILITY/PRICING
Mr. Smith relayed concerns that while credit hours for a specific course offered by ALI and the Global Training Center may be the same, the price to participants differ. Ms. Murray explained that the GTC price are based on the local economy. Courses are tailored to participants in the Middle East, Northern Africa and parts of Asia. The costs are lower and prices reflect the lower costs. The training center further reduces pricing for participants from developing economies. Procedures are in place to guide registrants to the appropriate training based on their general location.

D. LIAISON COURSE REPORTS/EVALUATIONS
Mr. Smith led a discussion of TEC Liaison responsibilities and reporting structure. A template for TEC Liaisons to use for course reviews is available on Basecamp. Liaisons should use the
same format for all reports. It was recommended that all related TEC Liaison information be kept in a central Basecamp location.

ACTION 12: Staff Liaison will add the list(s) of courses showing the assigned liaisons to Basecamp along with the reporting template.

ACTION 13: Mr. Vallort will create a timeline for posting participant and TEC Liaisons course reviews to Basecamp.

A suggestion was made to reach out to chapters and companies to determine course interest and need.

E. SDL ASSISTANCE
   Work to review and revise select Self-Directed Learning (SDL) courses continues. A corresponding PowerPoint presentation should exist with each SDL so it can be used for Group Learning. Assistance may be needed to ensure up-to-date PowerPoints.

Ms. Pierson reported the Young Engineers in ASHRAE (YEA) are creating short, 1-2 minute, video clips to share information about ASHRAE. The videos are geared towards YEA members but will be accessible to everyone. A few TEC members agreed to share information about available ALI courses and other topics that may interested YEA. training opportunities.

ACTION 14: Ms. Pierson to send a summary of the program to Ms. Schroeder for review.

XIII. NEXT MEETING
   Spring 2021 Conference Call
   Annual Meeting

XIV. ADJOURN
   Mr. Smith adjourned the meeting at 1:00 p.m.
### APPENDIX A – Open Action Items

#### ACTION ITEMS

**PDC Meeting June 11, 2020 (Virtual)**

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<tr>
<td>1</td>
<td>2</td>
<td>Staff Liaison</td>
<td>Follow-up &amp; determine need and resources for complete SDL updates.</td>
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<td></td>
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<td>In progress. Ms. Murray received comments on three of the six SDLs</td>
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<td>under review. Most agree that while the technology is still valid, many</td>
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<td></td>
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<td></td>
<td>references need to be updated to present day. A few minor corrections</td>
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<td></td>
<td></td>
<td></td>
<td>are also needed. The reviewer of the Load Calculations courses agreed</td>
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<td>to make the necessary updates. As a result of budget freezes, SDL</td>
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<td>updates will be on hold until at least July 2021.</td>
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**PDC Meeting February 2020 Orlando**

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<th>No.</th>
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<tr>
<td>4</td>
<td>4</td>
<td>Planning (AdHoc)</td>
<td>Develop RFP for Energy Audits exam prep course.</td>
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<td></td>
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<td>An opportunity exists to align courses with each certification. The</td>
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<td>TEC Planning Subcommittee will reach out to the Certification Committee to</td>
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<td>determine if interest still exists for the BEAP exam and possibly for</td>
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<td></td>
<td></td>
<td></td>
<td>others.</td>
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<tr>
<td>8</td>
<td>4</td>
<td>Full Committee/</td>
<td>Review Strategic Plan Goal 1 for training opportunities. Assigned to</td>
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<tr>
<td></td>
<td></td>
<td>Planning</td>
<td>Ms. Schroeder and Mr. Sneed to draft ideas for review. The draft is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>complete. Ms. Schroeder reviewed comments during the meeting. Ms.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Murray will upload the copy to Basecamp for review.</td>
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**PDC Meeting December 2019 (Call)**

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<tr>
<td>3</td>
<td>3</td>
<td>Operations</td>
<td>Report on Non-performing courses</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Ms. Murray will upload to course usage report to Basecamp for</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Operations Subcommittee review.</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>Operations</td>
<td>Review eLearning and Global Training Center courses</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Ms. Murray will upload the current list of eLearning courses and the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Global Training Center course schedule to Basecamp for Operations</td>
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<td></td>
<td>Subcommittee review. Action also referenced in 2020-21 MBO.</td>
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### Training & Education Committee

**MBOs for Society Year 2020-21**  
Chair: Jeremy Smith  
Date: December 1, 2020

<table>
<thead>
<tr>
<th>Objective</th>
<th>SP Complete by</th>
<th>Fiscal Impact</th>
<th>Responsible Party</th>
<th>Comment/Status</th>
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</thead>
<tbody>
<tr>
<td>1. Review new strategic plan for items that apply to TEC and develop a plan to implement 2 ideas from the review. Implement 1 idea in the fall and 1 in the spring.</td>
<td>None</td>
<td>Planning Subcommittee</td>
<td>Review started</td>
<td></td>
</tr>
<tr>
<td>2. Develop topics and RFPs for an additional (3) practical applications courses</td>
<td>None</td>
<td>Planning Subcommittee</td>
<td>In progress</td>
<td></td>
</tr>
<tr>
<td>3. Review SDLs and issue RFPs for the ones that need updating on prescribed schedule</td>
<td>None</td>
<td>Operations Subcommittee</td>
<td>36 mos. post issuance Continuous</td>
<td></td>
</tr>
<tr>
<td>4. Review existing courses and sunset those that have not been used in 5 years or recommend updates</td>
<td>None</td>
<td>Operations Subcommittee</td>
<td>Continuous Most eLearning courses were developed in 2007. Updates began ~1 yr ago. Should eLearning be included? TEC to audit? Yes. <strong>ACTION:</strong> Ms. Murray will send list of courses to TEC. (Also incl in Action 4 from 12/2019 mtg.)</td>
<td></td>
</tr>
<tr>
<td>5. Every course reviewed by TEC Liaison prior to presentation—Quality check</td>
<td>None</td>
<td></td>
<td>Continuous – 1-2 months prior to meetings <strong>ACTION:</strong> Ms. Murray will post assignments and review form to Basecamp.</td>
<td></td>
</tr>
<tr>
<td>6. Develop marketing plan for TEC courses/branding. Work with ASHRAE marketing to understand and improve</td>
<td>TBD</td>
<td>Planning Subcommittee</td>
<td>Continuous – 1 conf. call early fall and 1 conf. call early spring <strong>ACTION:</strong> Ms. Murray will post a report to Basecamp listing marketing efforts within the last 6 months</td>
<td></td>
</tr>
<tr>
<td>7. Develop Financial Model for course evaluation</td>
<td></td>
<td>Operations Subcommittee</td>
<td>Draft by Mar 21 Final by TBD</td>
<td></td>
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**Additional Recommendations for Strategic Planning:** Not at this time
### SUMMARY OF ALI COURSE REGISTRANTS

(To date January 2021)

<table>
<thead>
<tr>
<th>Year</th>
<th>Winter</th>
<th>Annual</th>
<th>Online</th>
<th>In-Company</th>
<th>Chapter</th>
<th>Industry</th>
<th>HVAC I</th>
<th>HVAC II</th>
<th>GTC</th>
<th>TOTAL*</th>
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<tbody>
<tr>
<td>2020-2021 (Virtual/Phoenix)</td>
<td>Virtual</td>
<td></td>
<td>395**</td>
<td>891</td>
<td>300</td>
<td>1,008</td>
<td>123</td>
<td>30</td>
<td></td>
<td>1,488</td>
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<tr>
<td>2019-20 (Orlando/Virtual)</td>
<td>1,138</td>
<td>Virtual</td>
<td>752***</td>
<td>665</td>
<td>200</td>
<td>42</td>
<td>312</td>
<td>250</td>
<td>597</td>
<td>3,956</td>
</tr>
<tr>
<td>2018-19 (Atlanta/Kansas City)</td>
<td>746</td>
<td>212</td>
<td>260</td>
<td>735</td>
<td>600</td>
<td>453</td>
<td>548</td>
<td>331</td>
<td>730</td>
<td>4,615</td>
</tr>
<tr>
<td>2017-18 (Chicago/Houston)</td>
<td>838</td>
<td>173</td>
<td>417</td>
<td>1,813</td>
<td>400</td>
<td>124</td>
<td>565</td>
<td>441</td>
<td>153</td>
<td>4,924</td>
</tr>
<tr>
<td>2016-17 (Vegas/Long Beach)</td>
<td>1,161</td>
<td>231</td>
<td>449</td>
<td>882</td>
<td>405</td>
<td>51</td>
<td>680</td>
<td>383</td>
<td></td>
<td>4,242</td>
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<tr>
<td>2015-16 (Orlando/St. Louis)</td>
<td>916</td>
<td>214</td>
<td>418</td>
<td>662</td>
<td>430</td>
<td>126</td>
<td>777</td>
<td>444</td>
<td></td>
<td>3,987</td>
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</tbody>
</table>

*Total does not include eLearning or SDL registrants.

** An additional 2,584 individuals registered for free online webinars.

*** An additional 6,909 individuals registered for free online webinars.