Meeting Minute Taker: Brian Meneghan, Vice Chair

1. Call to order by Wangda Zuo; Chair
2. Voted in Huston, TX Meeting Minutes: Unanimously approved.
3. Roll Call and Quorum Determination – We had 8 out of 9 voting members

<table>
<thead>
<tr>
<th>Name</th>
<th>Attendance</th>
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<th>Attendance</th>
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<tbody>
<tr>
<td>Wangda Zuo</td>
<td>Yes</td>
<td>O. B. Kazanci</td>
<td>Yes</td>
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<tr>
<td>Brian W. Meneghan</td>
<td>Yes</td>
<td>David Veron</td>
<td>Yes</td>
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<tr>
<td>Birol Kilkis</td>
<td>No</td>
<td>SA Sherif</td>
<td>Yes</td>
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<tr>
<td>Dolaana Khvalyg</td>
<td>Yes</td>
<td>William Kopko</td>
<td>Yes</td>
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<tr>
<td>Zidu Ma</td>
<td>Yes</td>
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*9 attendances, all in person

4. ASHRAE Liaison Reports: (Wangda Zuo - Chair)
   a. Craig Messer, new section 7 head spoke. He introduces himself as well as elaborated on new direction of TC & FC direction.
   b. Bill Murphy is the new RAC Chair
   c. Robert Bean, ALI Coordinator, gave guidance on course length. Ongun will look to give shorter time frame for more detail breakdown of “Introduction and applications of exergy principles to the built environment and heating / cooling in buildings.

5. Review of Agenda: (Wangda Zuo - Chair)
   a. Changes and additions: No Changes were made.
   b. The following, Items 5 and on, are the record of conversations

6. Review: (Wangda Zuo)
   a. Discussed Title and Scope of Exergy Analysis for Sustainable Building for Submission.

7. Role and Structure changes: (Wangda Zuo - Chair)
   a. Wangda Zuo will roll off as the TC chair on July 1, 2019. The vice Chair will move to the Chair and Secretary will move to Vice-Chair.
   b. New Secretary (effective on July 1, 2019): Dolaana Khovalyg, e-mail: dolaana.khvalyg@epfl.ch
   c. Member becoming Membership S/C Chair: Mike Trantham, e-mail: mike.trantham@imi-hydronic.com

8. Chair’s Progress Report: (Wangda Zuo)
   a. Chair’s Breakfast Meeting updates
      i. Introduction of new section person, Craig Messar
      ii. New direction for TC & Function structure. It is ASHRAE goal to reduce the amount of meetings so that there is better efficiency and calibration throughout ASHRAE.
1. There will be a time period where members can submit their thoughts and guidance on how the reconfiguration to a more efficiency structure will be done. Wangda will send out the form to member’s ounce he receives it.

2. Sub Committee’s is where the majority of small groups will go about participation.
   iii. No member can use the ASHRAE logo without the written approval external to the organization.

9. Membership: (Dolaana Khovalyg)
   a. Dolaana updated us membership that we have 50 plus members. 10 of those have joined between the Huston meeting and now.
   b. Dolaana will be moving up to Secretary Vacancy position. Mike Tranatham agreed to take on membership from Dolaana. A vote suggested by Wangda was done. Mike has been confirmed in the role of Dolaana.
   c. Wangda Zuo will roll of as VM on 6/30/2019, Sen Huang will roll on as VM on 7/1/2019.

10. Handbook: (Birol I Kilkris). Discussion has been tabled until Kansas City

11. Research: (Zidu Ma)
   a. Zidu Ma is continuing of work on how to model the thermodynamics exergy through a building model of an HVAC System. The problem that is coming up with relating the theory of exergy on Academic level to a “real life” application. The following ideas where expressed:
      i. Need to express the thermodynamics translated into Energy Plus.
      ii. How do we keep the theme of exergy translated to simple terms that are used today? For example; we use the idea of delivering power that is required upon time to increase the efficiency of the source. If you need to 50 units can you delivery low output of 5 unit’s intervals (low exergy) or 10 intervals (higher exergy).
      iii. Thinking simply of exergy as filling up a bucket. If you fill the bucket slow you will have less waste from water not going outside the bucket. On the other side, if you fill it up fast you will need more from source because you will waste from splashing.
   b. It is goal that we find a clear way to in the next year that we as a TC group define a way to relate exergy as a measurement of efficiency to improve consume use of energy.

12. Program: (Ongun Berk Kazanci)
   a. Wangda spoke for Ongun who will be giving a presentation, “Seminar 64 Wednesday (8:00-9:30am) on Thermodynamics Limits for Buildings: Part 2” Building B, B309

13. Standards: (General)
   a. Two speakers are needed for the Kansas City conference. Mike Tranatham & Brian Meneghan have agreed to work with Ongun Berk Kazanci for speakers on Exergy Seminar. An abstract is due by February 8th. Wangda to send out introduction to work together.

14. Website: (Sen Huang)
   a. One comment was to update the website with meeting agenda & meetings minute from previous conference before next meeting.
15. New Ideas: *(Wangda Zuo)*
   a. Nothing at this time...
16. *Wangda Zuo* Concluded meeting at 9:45 am
17. Next Meeting in Kansas City in June