## **ASHRAE TC 8.3 Absorption and Heat Operated Machines**

Meeting Minutes Monday, January 30, 2017 Winter Meeting – Las Vegas, NV

- 1. TC8.3 Chair Kyle Gluesenkamp called the meeting to order at 3.32 pm, and asked for members and visitors to sign the attendance sheet and give their introductions. Kyle also acknowledged James Aswegan for Liaison for Standards SRS.
- 2. Quorum: Five voting members and one member non-quorum (MNQ) were present. TC8.3 has 7 voting members. Therefore, a quorum was established for the meeting. The voting members present were: Doug Davis, Kyle Gluesenkamp, Ersin Gercek, Uwe Rockenfeller, Reinhard Radermacher and Juergen Scharfe (MNQ). In addition to the voting members, eight corresponding members and eight guests were also present.
- 3. Kumar Sivagnanam read the statement of purpose for TC 8.3.
- 4. Uwe Rockenfeller moved that the minutes from the summer meeting in St. Louis be accepted as submitted. Doug Davis seconded the motion. The motion was accepted (6, 0, 0 CV). (Audio recording ending 13:37)
- 5. Subcommittee reports were presented:
  - a. Standards: James Aswegan advised that every 3<sup>rd</sup> year that any standard be sent to the TC to revise, re-affirm or withdraw and if it is revised or re-affirmed that it shall be in mandatory language. He stated that the SRS meets on Tuesday afternoon and he needed a decision by then. A motion to re-affirm Standard 40 "Methods of Testing for Rating Heat Operated Unitary Air Conditioning & Heat Pump Equipment" was made by Uwe seconded by Reinhard. The motion was accepted (6, 0, 0 CV). (Audio recording ending 10:21).
  - b. Seminars: Ersin suggested one session titled "Commercial & Industrial Absorption Heat Pump Applications" with 3 speakers being Doug Davis, Juergen Scharfe & possibly Rajesh Dixit(?); for June 2017 in Long Beach as part of the Technology Track. Patrick might be the chair person. Motion for a seminar at Long Beach CA., was made by Uwe seconded by Doug. The motion was accepted (6, 0, 0 CV) (Audio recording ending 27:41).
  - c. Research: Uwe Rockenfeller (Sub-committee chair) reported that the RTAR (# 1796) titled 'Design Guide for Absorption Chillers and Heat Pumps' has been submitted by Paul Sarkisian to RAC. Reviewed minutes from St. Louis. No changes. Regarding RTARs there are 2 issues both being positive. Paul Sarkisian has been accepted for moving it to a Work Statement. The 3 members for the subcommittee are Paul Sarkisian, Tim Wagner & Doug Davis.

Application Guide for Absorption for Heating & Cooling... It needs to be presented to committee in June 2017. A copy of the submission with the new title voted on in the January 2016 main committee meeting is enclosed in the Research Subcommittee Meeting Minutes (available on TC 8.3 website)

RTAR: "Cogen, Tri-generation for Building Design" was submitted by Paul Sarkisian. The review committee had a couple of questions, which have been addressed. One of the concerns was that the vote was 4, 0, 0. and it was opined that 4/7 was marginal. Some additional corrections have been made to the RTAR. A copy will be attached to the meeting minutes and made available on the TC8.3 website. A motion to re-vote incorporating the changes as sent out in the agenda was moved by Uwe, seconded by Reinhard. The motion was accepted (6, 0, 0 CV.) (Audio recording ending 42:33).

Volunteers: Paul Sarkisian & Jinchao Yuan. Uwe: Regarding the timeline; if we submit this in the next few weeks and if the feedback is positive we will need to submit a Work Statement. We will have 1.5 yrs to submit a work statement with 3 volunteers again & 3 years to get it through a bidding process until the WS expires.

Tim Wagner was working on RTAR "Design Guide for Thermally Activated Heat Pumps". He did not find enough information to justify a standalone RTAR. So this is not being pursued. Therefore encourage members to think of new RTAR topic for the year to year and half time frame. Uwe will fill out the RTAR status report for the Las Vegas meeting prior to the summer meeting. (Audio recording ending 46:25).

d. Handbook: Juergen (Sub-committee chair) reported that in late 2015/early 2016 some corrections in some paragraphs were made but not updated since and only partly completed. A chapter on Heat Pumps is still missing. The intention is to skip a chapter on Heat Transformer and rewrite a chapter on heat pumps with a short section on Heat Transformers. Final text has to be submitted by summer ( deadline is July 31<sup>st):</sup>. Only very minor changes can be made thereafter in collaboration with the editors a layout stage. Drawings must be in color, thereafter it needs to be sent to the editors. Joe Brillhart agreed help with the illustrations. Juergen stated that a Word document will be floated around and wait for comments. Do not edit directly in the website. Send the text to Juergen. The opportunity to revise is by summer of this year otherwise it will not be possible for another 4 years. (Audio Rec: ends 54:26). Kyle mentioned that a (0-4) score is being kept of the various section edits on the Handbook every 4 years. 0 is no edits, 1 is minor (<5%); 2 major <50%, 3 is major and 4 is extensive edits. We have had 0's for the past 12 years in Refrigeration. Fundamentals Handbook has quite a few edits for the past several years and is due for overhaul. Refrigeration has 0s for the past 12 years which follows Fundamentals handbook by one year. Technology has had no changes in the past 12 years. The last major edit was in 2002. (Audio recording ending 56:55).

- (addendum JS after meeting: please send all proposals for text and illustrations to Juergen's office, Mrs. Zohra Toumia zt@jseb.de, She will be compile all suggestions and circulate regularly).
- e. Standards: Jay Kohler (sub-committee chair) Standard 40 has been covered earlier. Jay reported that the "ASHRAE Standard 182 Method of Test for Absorption Chillers" to use as reference or parts thereof. An SPC was formed had met in the morning with quorum and working through revisions. A couple of standards are tied into that work "Standard 30 Method of test for liquid chillers". They just finished up and will be published soon. AHRI 560 is the other important standard 182 will be referenced by 560. Right now 560 has its own test method. They just finished up 30 and it will be published very soon. Standard 182 referenced by AHRI 560:2000. The plan is to pull it out and directly reference ASHRAE Standard 182. Time constraint is that there is a 10 yr ANSI update cycle. AHRI update has been delayed several times. Will have regular net meetings (Audio recording ending 59:30).
- 6. Kyle Gluesenkamp presented the Chairman's Overview and Report.
  - a. Kyle recognized Justin Meredith, section head. He had no new news to report. He was informed that we had 6/8 for quorum. No issues concerns from the handbook committee and that roster issues have been addressed.
  - b. The seminar session # 18 sponsored by TC8.3: "Thermally Driven Devices are Heating Up" chaired by Kyle Gluesenkamp with 4 speakers was well attended with between 50~60 audience members. This session had 3 international speakers that are participating in the IEA Annex 43. Several attendees at the TC meeting were among the audience. Ersin announced Seminar 65 to be held on Wednesday "Impacts of Technology & Energy Markets to the Performance of Absorption Economics" also sponsored by TC8.3 (Audio recording begin: 27:40).
  - c. At the Chairs Breakfast it was stated that 80% of the conference papers were accepted. Most of those that were not accepted were because the submission forms were incomplete. Conference papers have to be submitted 2 meetings ahead. The deadline for Long Beach is passed. For winter (Chicago) session we need to submit by March 2017. There are 3 types of sessions: Seminar; Conference Paper & Technical paper. Technical papers sessions have the most rigorous peer review process. Conference paper session is less rigorous. Ensure that papers are connected to hot topic; ensure that the form is not missing information and communicate with the track chair.
  - d. The deadline for submitting seminar proposals for Long Beach is 6 Feb, 2017. Uwe made a motion to sponsor a seminar titled "Commercial and Industrial Absorption Heat Pumps". Possible speakers: Doug Davis, Juergen Scharfe & possibly Rajesh Dixit (?). Juergen seconded the motion and it passed (6, 0, 0 CV).

- e. Provided an overview of existing and new (effective 1/30/2017) voting members. As members Reinhard Radermacher & Ersin Gercek are scheduled to roll off on 6/30/2017, two new members Tim Wagner & Kumar Sivagnanam will be added 7/1/2017.
- f. Provided an overview of existing and new (effective 1/30/2017) TC 8.3 member positions. Memberships will be submitted by midnight 30 Jan 2017.
- g. Website: Nothing to report. Ken is not present. The website is supposedly easier to use. Ken has been keeping it updated.
- h. Membership is good. We are making great changes on the Handbook. We have a lot of good programs. We are keeping Standards up to date. The TC has a good sense of humor. Would like to thank Rajesh for his great role as chair for the past few years by bringing members in, and trying to obtain recognition and an award for the TC. We have a lot of active and good sub-committee chairs. Kyle will continue to pursue an award or recognition for the TC.
- i. Old Business: None.
- j. New business: ASHRAE has implemented a penalty system for not submitting PPT slides in time. The penalty is a probationary period.
- k. The 125<sup>th</sup> anniversary for AHSRAE is in 2019 and the historical committee is planning on a monthly journal article to be published with content of historical significance being contributed from each TC.
- l. Remote Participation can be accomplished if any member desires so for a subcommittee.
- m. International Abs Heat Pump Conference is in Tokyo which happens every 3 years. The 2017 IEA Heat Pump Conference is in May in Rotterdam with a large number of papers in the area of absorption.
- 7. Kyle recognized Eric Smith. (International Institute of Ammonia Refrigeration). Eric stated: that a change proposal has been submitted to AHSRAE 15 to refer to IIAR 24 "Design for NH3 Refrigeration Systems" which will include "Design for Absorption Systems". Will be issuing an addendum to IAAR 2 has inclusion of Absorptions systems. Don Erikson provided tutelage Eric will send Kyle the reason statements for distribution to the TC. Further as ammonia is regulated by Federal Government and state agencies, regulators and those that need to comply with the regulations have been a little bit confused, so IIAR has been asked to clarify. The standards excludes small systems and is based on whether a system has been listed elsewhere.
- 8. The next meeting will be held on Monday June 26<sup>th</sup>, 2017 in Long Beach, CA.

9. Uwe Rockenfeller moved that the meeting be adjourned. Reinhard seconded the motion and it was passed (6, 0, 0 CV). The meeting was adjourned at approximately 4:50 pm. (Audio recording ending 1:20:41)

Duration of recordings: (1:20:41)



## MINUTES RECIPIENTS AND ATTENDANCE LIST

(see accompanying PDF)

Distribution: All current emails in the roster.

Additional Distribution: By legible emails in the Jan 30, 2017 sign in sheet: michael@rockyresearch.com, bhedman.entropyresearch@gmail.com, jinchaoyuan@gmail.com, sbigham@mtu.edu, emaker@energy-concepts.com, jaswegan@titus-hvac.com, imahderekal@iceghp.com, .

Illegible emails in the Jan 30, 2017 sign-in sheet: peterschossig@???

