



TC 6.8 Geothermal Heat Pump and Energy Recovery Applications

Atlanta, GA 2019 Winter Meeting

Location: Georgia World Congress Center A305

T.C. 6.8 FULL COMMITTEE MEETING MINUTES - DRAFT

Tuesday, January 15th, 2019

3:30-6:00PM

Members Present	Year Apptd	Members Absent	Year Apptd	Ex-Officio Members And Additional Attendance
Scott Hackel Chair Steve Hamstra Vice Chair Dennis Koop Sec. Mike Filler Hugh Henderson Dr. Piljae Im Michael Kuk Dr. Bill Murphy Kay Thrasher ALI (9 Voting)	18-20 18-22 18-22 16-19 18-22 18-22 18-19 16-20 16-20	Derek Birdsall Dr. Harrison Skye Cary Smith Dr. Shaojie Wang Bruse Baccei MNQ Ed Lohrenz MNQ (4 Voting, 2 Voting-NQ)	18-22 18-21 18-21 16-20 16-20 16-20	<u>Corresponding Members</u> Craig Buscher Webmaster Lisa Meline Std. Sub Com. Dr. Jeffrey Spittler Chair Research Sub Committee Dr. Xiaobing Liu Res. Sub Trey Austin Dee Brower Steven Carlson Dr. Chris Gray Carl Huber Dr. Steve Kavanaugh Robert Koschka Howard Newton Timothy Roos Greg Tinker (14) <u>Guests</u> Mark Baines Daniel Cowan Hank Cullinane Sean Faltermeier Sean Gao Chuck Hammock Lance MacNevin Paul McCarty AntashNajib Defeng Qian Roshan Revankar John Turley Mark Umland Brian Urlaub Ted Wayne (15)

TAC Section Head: Mr. Dawen Lu, PE

Handbook Liaison: Dr. Prakash R. Dahamshala / Ms. Suzanne LeViseur, PE

Research Liaison: Dr. Omar A. Abdelaziz

Standards Liaison: Mr. Erick A. Phelps

Staff Liaison: Mr. Michael R. Vaughn, PE

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1. Call to Order

- Welcome, Introductions, and Sign-In
- Visitors Welcomed: 1st timers and YEA
- Reviewed Voting Members & Determination of Quorum
 - Quorum achieved at 3:40.

2. Approval of minutes from Annual 2018 (Houston 2018)

- Motion Dr. Bill Murphy
- Second Kay Thrasher, 8-0-0-CNV

3. Announcements from ASHRAE

- Section Head – Dawen Lu – no report
- Liaisons
 - Staff – No report
 - Standards – Erick Phelps- No report
 - Research – Dr. Omar Abdelaziz – No report
 - Handbook – Prakash Dhamshala/ Suzanne LeViseur - No Report
 - TAC – Thomas Justice- No Report
 - ALI/PDC – Bochat- No Report
 - Codes: Steve Ferguson- No Report

4. Announcements from the Chair

- Topics from Chair
 - ASHRAE plans to reorganize the TCs by consolidating committees and wants each TC to offer suggestions about a new grouping.
 - Reorganization suggestions were discussed... see in New Business
 - Health and Wellness in Buildings is a new MTG
 - Residential Section wants to Co-sponsor research
 - New Professional Development topics are being requested by ALI
 - “Basecamp” internet software is being considered for sharing documents by the TC... more in New Business

5. Subcommittee Reports:

- KTM Award – Lisa Meline
 - New 2018 Award Winner recipient Antash Najib was recognized for his contributions in developing a ground heat exchanger.
- Handbook -
 - Geothermal – Harrison Skye 2019 Handbook / Looking for Chair for next cycle
 - ASHRAE HQ sends chapter proof to TC by March 15
 - Handbook volume sent to printer April 1
 - Handbook mailed May 15
 - Applied Heat Recovery – Mike Filler
 - Chapter on applied heater recovery did not make changes this cycle. Good interest in chapter with 6 attending Jan 14 meeting. 2020 will need updates and will start working on this; need more volunteers and feedback, please send suggestions to Mike.
- Standards – Cary Smith/Lisa Meline
 - Nothing to report
- Programs - Harrison Skye/Michael Kuk: **Atlanta, Kansas City, Orlando**
 - Meeting held Sunday January 13th. 20 in attendance
 - Two Seminars at Atlanta meeting on Jan 14th; Refrigeration and Common system Issues and Misapplication.

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- TC 6.8 Sponsored a Seminar about Ground-Source heat Pumps that had 85 attendees, and we thank Chair Mike Kuk, Dr. Steve Kavanaugh, and Lisa Meline for outstanding presentations about Ground Source Heat Pumps: You can't always get what you want.
- Lisa Meline presented another seminar about Ground-Source Heat Pump Design for a moderate Residence in Northern California on Jan 14th.
- **2019 Kansas City MO – Summer Conference Dates: June 22-26, 2019**
 - Track 3: Optimization in HVAC&R
 - Needs a Chair
 - Three presentations are suggested with a Feb 8, 2019 deadline for Program Proposals
 - Track 4: Commissioning new & Existing Buildings
 - TC (commissioning) offered to create presentation on Cx/Rcx of GHP systems if TC 7.9 is looking for speakers. Offered TC 6.8 co-sponsorship.
 - Track 5: Occupant Health & Safety
 - Dr. Kavanaugh has a potential presentation, but needs others to participate.
 - Track 7: Professional Development
 - Lisa Meline will look into presenting
 - Dr. Kavanaugh suggested case studies for mid-small GHP Design Firms to help the Sell Ground-Source heat Pump Systems.
 - Track 9: Radiant Heating & cooling Mini-Track
 - Chair: Devin Abellon
 - Kuk reached out to TC 6.5 and indicated we have potential speakers to co-sponsor / coordinate
 - 4 ideas for presentation
- **2020 Orlando, FL – Winter Conference Dates: February 1 – 5, 2020**
 - Track 1: HVAC&R Fundamentals and Applications
 - Track 2: Systems and Equipment
 - Track 3: Refrigeration and Refrigerants;
 - CO2 idea will send to H. Skye
 - Track 4: Cutting Edge Approaches
 - 3 ideas applying ground source heat pumps
 - Track 5: High Efficiency Design and Operation
 - Track 6: Big Data and smart Controls
 - Track 7: Ventilation, IAQ and Air Distribution Systems
 - Track 8: Standards, Guidelines and codes
 - L. Meline may have proposed ISO changes
 - March 18, 2019 Deadline for Conference Paper Abstracts
 - June 17, 2019 Website Opens for Seminar Proposals
- Research - Dr. Jeff Spitler: **Work statements and RTARs**
 - Sub meeting Monday January 14th 10 attendees
 - Work statement 1817 “Long term temperature change of ground heat exchangers.”
 - RAC reviewed and returned for changes to better define Go - No Go - Stop
 - May require 2nd vote.
 - Work statement 1812 “Detection and Diagnosis of Leakage for Ground Source Heat Pump Systems (GSHP)” developed by TC 7.5 RAC returned for revisions. Requested TC 6.8 Co-Sponsor.
 - **Approval for TC 6.8 to Co-Sponsor**
 - Motion Steve Hamstra
 - Second Dr. Bill Murphy, 7,0,0,CNV

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- Lisa Meline RTAR “Required flow velocities for flushing and purging of solids in ground-source heat pump and hydronic systems”:
 - RTAR is in progress and Dr. Spitler and Dr. Murphy agreed to help write.
 - TC 6.1 may be interested as Co-Sponsor.
- Membership - Chair and Vice Chair will discuss **Roll-on / Roll-off Members**
 - Two members scheduled to roll off this year after June meeting, and five members scheduled to roll off next year,
 - Dr. Bill Murphy suggested smoothing out the number of members rolling on and off,
- Education and Special Publications/Journal - Vacant:
 - ASHRAE Publication Committee is requesting a review of two publications 16 years old about Drilling Methods, Commissioning, and Troubleshooting. Lisa Meline still uses them. Suggested keeping them in bookstore.
- Webmaster - Craig Buschur **Website Needs and Webmaster**
 - Craig Buschur added the KTM Award for 2018, and will initiate an update that includes subcommittee agendas. Please send Craig your Sub Committee agendas.
- 6. Industry Liaison Reports:**
 - IGSHPA, IAPMO, NGWA – Cary Smith
 - No update
 - GEO – Liaison
 - Roshan has volunteered to be GEO liaison
- 7. New Business**
 - The Society is suggesting reorganizing and consolidating all ASHRAE Technical Committees and is requesting feedback.
 - Reasons for changes:
 - Enhance free flow of information
 - Reduce the number of meeting rooms at conferences
 - Promote Sub Committee interaction “Virtual Meetings” between conferences
 - Will have more Sub Committees
 - Schedule all TC meetings on Monday and Tuesday afternoon
 - Chair requested feedback about combining TCs.
 - Our TC is already highly productive and strong without combining
 - Combining may lose face to face interaction and coordination
 - Will lose effectiveness
 - Fewer members will attend meetings
 - Possible TCs to consider for Consolidation:
 - 6.7 Solar and Other Renewable Energies
 - 6.2 District Energy
 - The chair took specific notes from all comments made, and will submit these to the Section Head for consideration in the reorganization
 - The Chair introduced **Basecamp** internet software to the TC as a new way to share organization documents and information.
 - Carl Huber and Dr. Bill Murphy said ASHRAE RAC uses Basecamp and it saves time in reviewing documents.
 - SPC -205 Standard Representation of Performance Simulation is interested in collecting data.
- 8. Adjourn**

Motion: Steve Hamstra, Second Dr. Bill Murphy Approved all

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