



Shaping Tomorrow's
Built Environment Today

MINUTES

RESEARCH ADMINISTRATION COMMITTEE

**HILTON HOTEL
ORLANDO, FL**

FEBRUARY 1ST & FEBRUARY 5TH, 2020

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FEBRUARY 1ST & FEBRUARY 5TH, 2020

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**PRINCIPAL MOTIONS
RESEARCH ADMINISTRATION COMMITTEE
FEBRUARY 1ST & FEBRUARY 5TH, 2020**

NO.	PAGE	MOTION
1	2	Draft minutes of the RAC fall 19 meeting be approved as written.
2	2	<u>1884-RTAR</u> , <i>The incorporation of odorants in refrigerants to improve leak detection Phase II, Experimental Study</i> . – TC 3.1 (Refrigerants and Secondary Coolants) – Follow-on study to RP-1794), is <u>accepted</u> .
3	3	<u>1891-RTAR</u> , <i>Assessment of tribological interactions of refrigerants and lubricants in HVAC systems</i> – TC 3.4 (Lubrication), is <u>accepted with comments</u> .
4	3	RAC approved a motion to award Gabrielle McMorro w the 2020-21 Homer Addams award.
5	3	RAC approved a motion that the following IRG pre-proposals be invited to submit full IRG proposals; #007, #015, #018, and #019.
6	4	Amanda Webb be awarded the 2020-2021 New Investigator Award.
7	4	<u>1683-TRP</u> , <i>Experimental Evaluation of Two-Phase Pressure Drop and Flow Pattern in U-Bends with Ammonia</i> , be awarded to GIK Institute of Engineering Sciences or a period of 30 months at a total cost to ASHRAE of \$157,367.
8	4	<u>1780-TRP</u> , <i>Test method to evaluate cross-contamination of gaseous contaminant within total energy recovery wheels</i> , be awarded to University of Saskatchewan for a period of 15 months at a total cost to ASHRAE of \$186,892.
9	4	<u>1824-TRP</u> , <i>Accounting for the Barometric Pressure Impacts on Psychrometric Performance Testing of Unitary Air-Conditioning and Heat Pump Equipment</i> , be awarded to University of Louisiana Lafayette for a period of 18 months at a total cost to ASHRAE of \$132,174.
10	4	<u>1830-TRP</u> , <i>Experimental Characterization of Aircraft Bleed Air Particulate Contamination</i> , be awarded to Kanas State University for a period of 18 months at a total cost to ASHRAE of \$138,305.
11	4	<u>1852-TRP</u> , <i>Develop performance metric, criteria, and process to measure and predict speech privacy in High Performance Buildings</i> , be awarded to Soft dB Acoustical Consulting for a period of 24 months at a total cost to ASHRAE of \$144,645.
12	4	<u>1883-URP</u> unsolicited research proposal, <i>Development of the ASHRAE Global Occupant Database</i> be awarded to Syracuse University for a period of 18 months at a total cost to ASHRAE of \$60,663.

New Action Items
Research Administration Committee (RAC)
Winter 2020
February 1st & 5th, 2020

Action #	Responsibility	Summary of Action	Status
1	MORTS	Review information from 2006 on how RAC conflicts were handled under Wayne Reedy's Chair term. Add to the agenda any conflicts for RTAR's, WS's, TRP's, NIA's, GIA's, etc..	
2	Wilkins	Modify conflict document and discuss and be ready to vote on Wednesday. Meeting vote on concept only not text for research manual.	
3	Wilkins	Update table to the WS and RTAR review form and distribute on Wednesday before second review meeting.	
4	Hutzel	Research liaison to work with the PMS on ASHRAE research project 1883-RP milestone.	
5	MORTS?	Check the Homer Addams rule to see if Yanfei Yi would be eligible for one more year for this award.	
6	Hutzel, Kashef, Claridge, Wilkins	Form a subcommittee to look at New Investigator award selection criteria. Look at documentation and procedures to determine ways we can make the award more impactful.	

Carry-Over Action Items
Annual Meeting 2019

Action #	Responsibility	Summary of Action	Status
1	Wilkins, Yashar, Eichelberger,	Write up proposed changes to the RAC MOP that research liaisons should not be research authors.	On-going
2	Staff	Continue to collect project cost data for the new research project estimating guide.	On-going

**RECURRING ACTION ITEMS
(EACH MEETING)**

<u>Responsibility</u>	<u>Summary of Action</u>
Chair	Report to Technology Council on RAC's MBO Status.
Research Liaisons	Remind all TC chairs and research subcommittee chairs in section that a draft of all Work Statement and RTARs, and all later versions should be sent to their Research Liaison for review before information is passed on to the Manager of Research.
RPS (Primary) RAS (Secondary)	Review RTARs
RAS (Primary) RPS (Secondary)	Review Work Statements
RAS (Primary) RPS (Secondary)	Review TRPs and URPs
RPS (Primary) upon (Secondary)	Review and revise the Society's Research Implementation Plan based accepted RTARs.
Subcommittee Chairs	Report Status of assigned MBOs.
Staff	Distribute copies of Technology Council's Action Items and Motions affecting RAC.
BOD ExO	Report to the RAC Chair BOD's Actions and Motions affecting RAC.
Staff	Forward URPs to RAS Chair to help identify a champion for the URP on RAC based on members background and experience. The RAC URP Champion will either help select a cognizant TC to review the URP or return the URP with a recommendation that it not be reviewed further as a possible ASHRAE research project.

**RECURRING ACTION ITEMS
(FALL MEETING)**

<u>Responsibility</u>	<u>Summary of Action</u>
RAS	Initial Plan for Research Breakfast Workshop for Winter Meeting
RLs	Review "Service to ASHRAE Research Award" nominations submitted by TC chairs and select the best nomination for RAC consideration.
MORTS	Prepare semi-annual report to RAC by December 15.

RECURRING ACTION ITEMS
(WINTER MEETING)

<u>Responsibility</u>	<u>Summary of Action</u>
RPS	Review New Investigator Award Nominations
RPS	Review Homer Addams Award Nominations
RPS	Review Innovative Research Grant (IRG) Pre-Proposals
MORTS	Prepare semi-annual report to RAC by May 15.

RECURRING ACTION ITEMS
(SPRING MEETING)

<u>Responsibility</u>	<u>Summary of Action</u>
RPS	Plan workshop for new RAC members at the Annual meeting.
RPS	Review Grant-In-Aid Applications

RECURRING ACTION ITEMS
(ANNUAL MEETING)

<u>Responsibility</u>	<u>Summary of Action</u>
Chair	Invite new RAC members to meeting and any training sessions at meeting.
Incoming Chair	Finalize MBOs and roster assignments. Set date for fall meeting.
RAS	Review Invited Innovative Research Grant (IRG) Full-Proposals

LIST OF ATTACHMENTS

- ATTACHMENT 1: Analysis Sheet
- ATTACHMENT 2: MORTS Report
- ATTACHMENT 3: Analysis Sheet
- ATTACHMENT 4: Analysis Sheet



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MINUTES

RESEARCH ADMINISTRATION COMMITTEE REPORT TO TECHNOLOGY COUNCIL FEBRUARY 1ST & FEBRUARY 5TH, 2020

MEMBERS PRESENT:

David Yashar, *Chair*
Christopher Wilkins, *Vice-chair*
Michael Pouchak, *Chair RAS*
Curtis Eichelberger, *Chair RPS*
Ahmed Kashef, *RL Section 1.0*
William Hutzal, *RL Section 2.0*
Stephen Kujak, *RL Section 3.0*
David Claridge, *RL Section 4.0*
Dennis Loveday, *RL Section 5.0*
Omar Abdelaziz, *RL Section 6.0*
William Murphy, *RL Section 7.0*
Christopher Seeton, *RL Section 8.0*
Paolo Tronville, *RL Section 9.0*
Lorenzo Cremaschi, *RL Section 10.0*
Xudong Wang, *Consultant AHRTI*
Hywel Davies, *Consultant CIBSE*
Trent Hunt, *BOD Ex-Officio*
Malcolm Knight, *Coordinating Officer*

GUESTS:

ASHRAE STAFF:

Michael Vaughn, *MORTS*
Tara Thomas, *AA*

MEMBER ABSENT:

Ian Cull, *Consultant IAQA*

A. CALL TO ORDER

Chair Yashar called the meeting of the committee to order at 8:00 AM.

B. ASHRAE CODE OF ETHICS

<https://www.ashrae.org/about/governance/code-of-ethics>

C. ADDITIONS AND/OR CHANGES TO THE AGENDA

None

D. APPROVAL OF MINUTES

It was moved and seconded that,

- (1) The draft minutes of the RAC fall 2019 meetings be approved as written.

MOTION #1 PASSED: 12-0-1-0, CNV

E. CHAIR'S REPORT

a) Disposition of Motions from Last Meeting or Letter Ballots

- Funded extension request motion for RP-1760 (Hospital garments) was approved by TechC.
- RAC TRP-1855 LB Vote results: 10-0-4¹-(14) CNV
- No objection from TechC & Board to proposed funding of the Behl's Foundation with remaining funds from RP-1180.

New & On-going Action Items Assigned by Tech. Council - None

b) New Information Items:

1. Update on results from Great Predictor Shootout competition - Gowri
2. Request from Van Baxter to use IEA travel grant funds for new Annexes 53 & 54 in addition to Annexes 41 & 42.
3. ASHRAE Presidential Member Bjarne Olesen will be dropping by our meeting representing the Board Planning Committee.

c) MBO Status Report – Review with action items

F. BOD EX-OFFICIO & COORDINATING OFFICER REPORTS

1. BOD Ex-Officio, Trent Hunt gave ExO presentation to RAC. Highlights of the report were the need to plan a system to track MBO's, RTARs, research projects, and work statements. Digital ASHRAE versus paper-based system. The Kaggle project is a good example of working outside the box.

G. DISCUSSION ITEMS

- a) Spring PMS Training Session Date & Feedback on Fall session - **MBO 1.1**
- b) How to deal with potential conflicts of interest on RAC?
- c) Update on proposed new procedures & forms for evaluating Technology Transfer related ASHRAE research projects – Yashar Lead - **MBO 1.2**
- d) Update on Research Project Database development efforts - **MBO 1.3**
- e) Update on efforts to develop guidance document for TCs to better estimate cost of RPs – ASHRAE Staff continues to collect cost data for guidance document.
- f) Disposition forms and follow-up?

Action #1 <xxx>:

H. ACTION ITEM TRACKING AND INITIAL REVIEW OF FALL ACTIONS & MBOs

**Carry-Over Action Items
Research Administration Committee (RAC)
Annual Meeting 2019**

Action #	Responsibility	Summary of Action	Status
2	Staff	Continue to collect project cost data for the new research project estimating guide.	On-going

I. RTAR REVIEW

RTAR reviewed two RTARs

It is moved and seconded that,

- (2) 1884-RTAR, The incorporation of odorants in refrigerants to improve leak detection-- Phase II, Experimental Study. – TC 3.1 (Refrigerants and Secondary Coolants) – Follow-on study to RP-1794), is accepted.

MOTION # PASSED: 12-0-2, CNV

It is moved and seconded that,

- (3) 1891-RTAR, Assessment of tribological interactions of refrigerants and lubricants in HVAC systems – TC 3.4 (Lubrication), is accepted with comments.

MOTION # PASSED RPS: 11-1-2 CNV

J. WORK STATEMENT REVIEW

None.

K. HOMER ADAMS

It is moved and seconded that,

- (4) RAC approved a motion to award Garielle McMorro the 2020-21 Homer Addams award.

MOTION # PASSED: 13-0-1, CNV

L. INNOVATIVE RESEARCH GRANT

It is moved and seconded that,

- (5) RAC approved a motion that the following IRG pre-proposals be invited to submit full IRG proposals; #007, #015, #018, and #019.

MOTION #10 PASSED: 13-0-2, CNV

M. FUNDED EXTENSION REQUESTS AND CARRY-OVER TRPS

None

N. NEW INVESTIGATOR AWARD

Eleven nominations were received for the 2020-2021 New Investigator Award.

It is moved and seconded that,

- (6) Amanda Webb be awarded the 2020-2021 New Investigator Award.

MOTION # PASSED: 13-0-1, CNV

O. RESEARCH SUBCOMMITTEE CHAIR'S BREAKFAST

A. Research Subcommittee Chair's Breakfast – Chair YASHAR Lead

a) Proposed Announcements

1. Service to ASHRAE Research Award recipient this year – No nominees this year. Submission date for Service to ASHRAE Research Award Sep. 1st each year. Staff can assist by providing redacted BIO for member.
2. Importance of obtaining full TC votes on approvals of submitted RTARs and WSs for both sponsoring and co-sponsoring TCs
3. WS based on conditionally approved RTAR must acknowledge how conditions were cleared.
4. Be sure to include Milestones in WSs submitted to RAC

5. Additional Announcements
b) RL Reminders for TCs

P. CONSULTANTS REPORTS

- B. Consultants' Reports
a) RAP – Dave Yashar for Reinhard Radermacher
b) AHRI – Xudong Wang
c) CIBSE – Hywel Davies

Q. MORTS Report

Semi-Annual Report, highlights from the report were discussed and the full report is included as (**Attachment #**)

S. TRPs to Potentially Bid Spring 2020 (12 TRPs)

- 1566-TRP-C, TC 8.10, (Mechanical Dehumidification Equipment and Heat Pipes)
- 1703-TRP-C, TC 1.8 (Mechanical Systems Insulation)
- 1716-TRP-C, TC 8.2, (Centrifugal Machines)
- 1718-TRP-C, TC 4.4 (Building Materials and Building Envelope Performance)
- 1740-TRP-R, TC 3.3, (Refrigerant Contaminant Control)
- 1789-TRP-R, TC 4.5 (Fenestration)
- 1790-TRP-R, TC 3.3 (Refrigerant Contaminant Control)
- 1797-TRP-C, TC 3.1 (Refrigerants and Secondary Coolants)
- 1831-TRP-C, TC 10.7 (Commercial Food and Beverage Refrigeration Equipment)
- 1835-TRP, TC 9.10 (Laboratory Systems)
- 1850-TRP-C, TC 4.2 (Climatic Information)
- 1879-TRP, TC 3.4 (Lubrication)

S. UNFINISHED OR OUT-OF-SEQUENCE BUSINESS

None

U. TENTATIVE RESEARCH PROJECTS

It is moved and seconded that,

- (7) **1683-TRP**, *Experimental Evaluation of Two-Phase Pressure Drop and Flow Pattern in U-Bends with Ammonia*, be awarded to GIK Institute of Engineering Sciences or a period of 30 months at a total cost to ASHRAE of \$157,367.

MOTION # PASSED: 12-0-1-1, CNV

It is moved and seconded that,

- (8) **1780-TRP**, *Test method to evaluate cross-contamination of gaseous contaminant within total energy recovery wheels*, be awarded to University of Saskatchewan for a period of 15 months at a total cost to ASHRAE of \$186,892.

MOTION # PASSED: 13-0-0-1 CNV

It is moved and seconded that,

- (9) **1824-TRP**, *Accounting for the Barometric Pressure Impacts on Psychrometric Performance Testing of Unitary Air-Conditioning and Heat Pump Equipment*, be awarded to University of Louisiana Lafayette for a period of 18 months at a total cost to ASHRAE of \$132,174.

MOTION # PASSED: 13-0-0-1 CNV

It is moved and seconded that,

- (10) **1830-TRP**, Experimental Characterization of Aircraft Bleed Air Particulate Contamination, be awarded to Kanasa State University for a period of 18 months at a total cost to ASHRAE of \$138,305.

MOTION # PASSED: 8-0-5-1, CNV **Letter Ballot**

It is moved and seconded that,

- (11) **1852-TRP**, *Develop performance metric, criteria, and process to measure and predict speech privacy in High Performance Buildings*, be awarded to Soft dB Acoustical Consulting for a period of 24 months at a total cost to ASHRAE of \$144,645.

MOTION # PASSED: 10-0-3-1, CNV

It is moved and seconded that,

- (12) **1883-URP** (unsolicited research proposal), *Development of the ASHRAE Global Occupant Database* be awarded to Syracuse University for a period of 18 months at a total cost to ASHRAE of \$60,663.

MOTION # PASSED: 8-0-2-4, CNV

Action # <Hutzel>: **Work with the PMS on milestones for this project.**

NOTE: RAC did not receive a contractor recommendation for the following TRPs.

- **1799-TRP**, “– *Validation of Extrapolation of Performance Rating Test Results for Small Energy Recovery*”, sponsored by, TC 5.5, Air-to-Air Energy Recovery – **Letter Ballot**
- **1817-TRP** – *Long-term Temperature Change of Ground Source Heat Exchangers*”, sponsored by, TC 6.8, Geothermal Heat Pump and Energy Recovery Applications– **Letter Ballot**

V. UNSOLICITED RESEARCH PROPOSALS

Unsolicited Research Proposals

- a) **1892-URP** – Enhancing the Performance of Water-Cooled Chilled Water Plants with Sensible Thermal Energy Storage – Seeton, Murphy, Claridge, Hutzel, Wilkins – **Status: Rejected by RAC as URP – Topic can be pursued as TRP instead**
- b) **1893-URP** – Blower-Door Testing of Typical Building with Air Barriers – **NEW**
Status: Need to appoint RAC URP review subcommittee
- c) **1894-URP** - Comparison between Ionization and Carbon Air Filtering at airports - **NEW**
Status: Need to appoint RAC URP review subcommittee

W. RESEARCH LIAISON SECTION REPORTS

RLs were asked to send reports to staff

X. UNFINISHED BUSINESS

Need for a follow-up conference call – TRPs to bid spring 2019.

Y. REVIEW NEW ACTION ITEMS

ADJOURNED

RAC adjourned at 9:45 AM.