



Shaping Tomorrow's  
Built Environment Today

**MINUTES**

**RESEARCH ADMINISTRATION COMMITTEE**

**SEPTEMBER 12<sup>TH</sup> & OCTOBER 7<sup>TH</sup>, 2022**

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**SEPTEMBER 12<sup>TH</sup> & OCTOBER 7<sup>TH</sup>, 2022**

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**PRINCIPAL MOTIONS  
RESEARCH ADMINISTRATION COMMITTEE  
SEPTEMEBR 12<sup>TH</sup> & OCTOBER 7<sup>TH</sup> , 2022**

NO.	PAGE	MOTION
1	1	the draft minutes of the RAC 2022 annual meeting be approved RAC vote, 10-0-3-1-(14) CNV
2	2	RAC approved a motion to release the following nine projects for bid in the fall: 1566-TRP, 1716-TRP, 1790-TRP, 1843-TRP, 1857-TRP, 1884-TRP, 1890-TRP, 1918-TRP and 1919-TRP. RAC vote 13-0-0-1-(14) CNV
3	3	<u>1941-RTAR</u> , <i>Experimental Program to Update the ASHRAE Duct Fitting Database (DFDB)</i> – <u>Accept with comments</u> – RAC vote: 11-0-0-1 (12) CNV
4	3	<u>1944-RTAR</u> , <i>Development of Standard Flow Hood Calibration Methods Investigating the baseline of flow capture hood calibration procedure - Return</i> – RPS vote: 5-0-0-1 (6) CNV
5	3	<u>1946-RTAR</u> , <i>Effects of Variation in Outdoor and Indoor Conditions and Sampling of Registers on the Uncertainty and Repeatability of ASHRAE Standard 221 Performance Scores for Installed Unitary HVAC Systems</i> – <u>Return</u> – RPS vote 5-0-0-1 (6) CNV
6	3	<u>1947-RTAR</u> , <i>Climate change, energy, and resilience map for HVAC technologies - Accept with comments</i> – RAC vote: 11-0-0-1 (13) CNV
7	3	<u>1948-RTAR</u> , <i>Effects of conditioning test methods on flat sheet media properties compared to field contaminant - Return</i> – RPS vote 5-0-0-1 (6) CNV
8	4	<u>1929-WS</u> , <i>Evaluation of building life cycle analysis tools incorporating embodied carbon - Return</i> – RAS vote 5-0-0-1 (6) CNV
9	4	<u>1934-WS</u> , <i>A Survey Study on the Development and Application of Data-Driven Model Predictive Control for Buildings</i> – Conditionally Accepted – RAC vote
10		Brent Stephens of TC 2.4, be awarded the 2022-2023 Service to ASHRAE Research Award.
11	5	<u>1879-TRP</u> , <i>“Foamability Properties of LGWP Refrigerant and Oil Mixtures</i> , be awarded to Oklahoma State University for a period of 18 months at a cost to ASHRAE of \$119,767.

**New Action Items  
Research Administration Committee (RAC)  
Fall Meeting 2022**

<b>Action #</b>	<b>Responsibility</b>	<b>Summary of Action</b>	<b>Status</b>
1	Murphy	Write up a proposal to extend the New Investigator Award nominations to period an additional two years	New

**Carried-over Action Items from Annual Meeting 2021  
Research Administration Committee (RAC)**

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

**RECURRING ACTION ITEMS  
(EACH MEETING)**

<b><u>Responsibility</u></b>	<b><u>Summary of Action</u></b>
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) (Secondary)	Review and revise the Society's Research Implementation Plan based upon 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 international URPs to RAS Chair in addition to the cognizant TC and Research Liaison.

**RECURRING ACTION ITEMS  
(ANNUAL MEETING)**

<b><u>Responsibility</u></b>	<b><u>Summary of Action</u></b>
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.

**RECURRING ACTION ITEMS  
(WINTER MEETING)**

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

RPS	Review New Investigator Award Nominations
RPS	Review Homer Addams Award Nominations
MORTS	Prepare semi-annual report to RAC by May 15.
RAC	Decide if spring meeting is needed and set date for spring meeting.

**RECURRING ACTION ITEMS**  
**(FALL MEETING)**

**Responsibility Summary of Action**

RAS	Plan Research Workshop for Winter Meeting
RLs	Review “Service to ASHRAE Research Award” nominations submitted TC chairs and select best nomination for RAC consideration.
MORTS	Prepare semi-annual report to RAC by December 15.

LIST OF ATTACHMENTS

None







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Built Environment Today

## MINUTES

### RESEARCH ADMINISTRATION COMMITTEE SEPTEMBER 12<sup>TH</sup> & OCTOBER 7<sup>TH</sup>, 2022

#### MEMBERS PRESENT:

Omar Abdelaziz, *Chair*  
William Murphy, *Vice-chair*  
Natascha Milesi-Ferretti, *Chair RAS*  
Jin Wen, *Chair RPS*  
Ahmed Kashef, *RL Section 1.0,*  
Chee Sheng Ow, *RL Section 2.0*  
William Hutzler, *RL Section 3.0,*  
Dennis Landsberg, *RL Section 4.0 (Sep. 12<sup>th</sup> only)*  
Douglas Scott, *RL Section 5.0 (Sep. 12<sup>th</sup> only)*  
Stefan Elbel, *RL Section 6.0*  
James Bogart, *RL Section 7.0*  
Carl Huber, *RL Section 8.0,*  
Roland Charneux *RL Section 9.0*  
Lorenzo Cremaschi, *RL Section 10.0*  
Tyler Glesne, *BOD Ex-Officio*

#### GUESTS:

#### ASHRAE STAFF

Michael Vaughn, *MORTS*  
Donna Daniel, *COORD*

#### MEMBERS ABSENT:

#### A. CALL TO ORDER

Chair Abdelaziz called the meeting of the committee to order at 11:00 am EDT, Monday, September 12, 2022 and reconvened the meeting to order at 11:00 am, EDT on Friday, October 7, 2022.

#### B. REVIEW OF AGENDA

The ASHRAE Code of Ethics is to be adhered to by those doing ASHRAE business whether or not they are an ASHRAE member. The link below will be provided in future agendas  
<https://www.ashrae.org/about-ashrae/adhvae-code-of-ethics>;

#### C. APPROVAL OF 2022 ANNUAL MEETING DRAFT MINUTES

It was moved and seconded that,

- (1) the draft minutes of the RAC 2022 annual meeting be approved.

**MOTION PASSED:** 12-0-0-1 (14), CNV

#### D. CHAIR'S REPORT – ABDELAZIZ

- a) Disposition of RAC Motions from Last Meeting – No Motions were submitted for higher body approval at the June meeting.
- b) New and On-going Action Items Assigned by Tech. Council:
  1. Define success metric for SY 21-22 RAC MBOs

- c) Discussion Items:
  - 1. PTAR process update
  - 2. RAP Progress to date – Review and approve draft Research Strategic Plan Approved by RAP.
  - 3. Development of PES training module & 1<sup>st</sup> training session
- d) New Information Items:
- e) 1. TBD
- f) MBOs

**E. STAFF SUGGESTED CHANGES TO THE RESEARCH PAGE OF ASHRAE WEBSITE**

Given our objective this year to prioritize TC developed research projects over all other research expenditures, should we remove from the ASHRAE website information on the following RAC programs or update the website to indicate that submissions for these programs will not be accepted for SY 21-22 so that TC members and others don't invest a lot of time and effort in a project proposal or award application that we can't fund this year:

- Innovative Research Grant – Fiscal Impact \$125,000
- Unsolicited Research Proposals – Fiscal Impact TBD

Continue with the following RAC programs for SY 22-23

- Homer Addams Award – Fiscal Impact \$3,500
- Service to ASHRAE Research Award - \$150
- Graduate Student Grant-in-Aid Program – Fiscal Impact \$250,000
- New Investigator Award – Fiscal Impact \$125,000

It is moved and seconded that,

- (2) The ASHRAE website be updated to include language that the Graduate Grant-in-Aid and New Investigator awards are reinstated for the society year 2022-2023.

**MOTION PASSED:** 11-0-0-1 (12), CNV

**F. TRPS & URPS STILL PENDING A FUNDING DECISION**

TRPs & URPs Still Pending a Funding Decision - NONE

**G. TRPs Potentially Bid Fall 2022**

It was moved and seconded that,

- (3) the following (9) three TRPs listed be approved for release to bid in the fall 2022,
  - **TRP-1566** - Equations to estimate evaporation rates from heated water\_pools in indoor recreational aquatic facilities
  - **TRP-1716** - “Oil Concentration of Field Installed Liquid Chillers with Flooded Type Evaporators”
  - **TRP-1790** - Water Solubility and the Distribution of Water Between Vapor and Liquid Phases of Low GWP Refrigerants
  - **TRP-1843** - Validation of Low-Order Acoustic Models of Combustion Driven Oscillations on Fire Tube Water Heaters”
  - **TRP-1857** – Improved simplified methodology for describing and calculating heat conduction between buildings and the ground
  - **TRP-1879** - Foamability Properties of LGWP Refrigerant and Oil Mixtures
  - **TRP-1884** - The incorporation of odorants in refrigerants to improve leak detection (Experimental Phase)

- **TRP-1890** - Minimum flow velocities for purging air and debris from hydronic piping
- **TRP-1918** - The Verification of openings, the limitations of openings, air distribution and humidity conditions in Naturally Ventilated spaces to compliment Section 6.4 of ASHRAE Standard 62.1
- **TRP-1919**, The effects of duct size and aspect ratio on flow noise in elbows

**MOTION PASSED:** 13-0-0-1 (14), CNV

#### **H. SERVICE TO ASHRAE AWARD NOMINATIONS**

One nomination was received this year.

It is moved and seconded that,

- (4) Brent Stephens of TC 2.04, be awarded the 2022-2023 Service to ASHRAE Research Award.

**MOTION PASSED:** 13-0-0-1 (14) CNV

#### **I. WORK STATEMENT REVIEW**

Two work statements were submitted by the TCs for review. One was conditionally accepted, and one was returned.

It is moved and seconded that,

- (5) 1929-WS, Evaluation of building life cycle analysis tools incorporating embodied carbon - sponsored by; TC 8.2 (Centrifugal Machines), be return w/comments.

**MOTION PASSED RAS:** 5-0-0-1, (6) CNV

It is moved and seconded that,

- (6) 1934-WS, A Survey Study on the Development and Application of Data-Driven Model Predictive Control for Buildings –sponsored by; TC 7.5, (Smart Building Systems), be conditionally accepted.

**MOTION PASSED RAC:** 13-0-0-1, (14) CNV

**Meeting recessed at 12:30 pm on Monday September 12<sup>th</sup>, 2022**

**RECONVENE** – 11:00 AM, October 7, 2022

#### **J. SENSITIVE NEW BUSINESS**

None

#### **K. BOD EX-OFFICIO & COORD. OFFICER**

BOD-Officio Tyler J. Glesne

#### **L. RTARS**

RAC reviewed a total of five RTARs submitted by TC/TGs for addition to the Society's Research Implementation Plan. Two were accepted w/comments and three were returned.

It is moved and seconded that,

- (7) 1941-RTAR, Experimental Program to Update the ASHRAE Duct Fitting Database (DFDB) – sponsored by TC 5.02 (Duct Design), be accepted w/comments.

**MOTION PASSED:** 11-0-0-1 (12), CNV

It is moved and seconded that,

- (10) **1944-RTAR**, *Development of Standard Flow Hood Calibration Methods Investigating the baseline of flow capture hood calibration procedure – TC 7.07 (Testing and Balancing)*, be returned.

**MOTION PASSED RPS:** 5-0--0-1 (6), CNV

It is moved and seconded that,

- (11) **1946-RTAR**, *Effects of Variation in Outdoor and Indoor Conditions and Sampling of Registers on the Uncertainty and Repeatability of ASHRAE Standard 221 Performance Scores for Installed Unitary HVAC Systems – SSPC 221, (Test Method to Field-Measure and Score the cooling and Heating Performance of an Installed Unitary)*, be returned.

**MOTION PASSED RPS:** 5-0-0-1 (6), CNV

It is moved and seconded that,

- (12) **1947-RTAR**, *Climate change, energy, and resilience map for HVAC technologies – TC 2.05 (Global Climate Change)*, be accepted w/comments.

**MOTION PASSED:** 11-0-0-1 (12), CNV

It is moved and seconded that,

- (13) **1948-RTAR**, *Effects of Conditioning Test Methods on Flat Sheet Media Properties compared to Field Contaminant – TC 2.04 Particulate Air Contaminants and Particulate Contaminant Removal Equipment)*, be returned.

**MOTION PASSED RPS:** 5-0-0-1 (6), CNV

**M. PTARs REVIEW**

NONE

**N. REVIEW OF ACTION ITEMS**

NONE

**O. UNFINISHED BUSINESS**

RTARs, 1935-RTAR and 1936-RTAR are carried over until the next meeting.  
PTARs are carried over until the next RAC meeting.

**P. NEW BUSINESS**

None

**Q. REVIEW OF NEW ACTION ITEMS**

**ADJOURN**

The meeting of the Research Administration Committee adjourned at 2:00 PM, Friday, October 7, 2022.