

**THE RESEARCH & TECHNICAL ACTIVITIES
REPORT
Release 1**

February 12, 2020

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FOR TC/TG/MTG/SSPC CHAIRS, VICE CHAIRS & RESEARCH SUBCOMMITTEE CHAIRS

2020 WINTER MEETINGS

The winter meetings of the Research Administration Committee (RAC), Technical Activities Committee (TAC), Refrigeration Technology Committee for Comfort, Process, and Cold-Chain (REF-CPCC), Technology Council, and the Board were recently completed with the results below. This report also includes information for RAC's and TAC's upcoming annual meeting.

NEW PROJECTS AWARDED

The following five projects were approved for award as follows:

- **1683-RP**, *Experimental evaluation of the two-phase pressure drop and flow pattern in U-Bends with ammonia*; Responsible Committee: **TC 1.3** (Heat Transfer and Fluid Flow); Co-Sponsor: **TC 8.4** (Air-to-Refrigerant Heat Transfer Equipment); Co-funding: None; Recommended Contractor: **GIK Institute of Engineering Sciences and Technology Natural Fluids Refrigeration Center**; Subcontractor: Auburn University; Estimated Duration: 30 months; Cost to ASHRAE: **\$157,367**
- **1780-RP**, *Test method to evaluate cross-contamination of gaseous contaminant within total energy recovery wheels*; Responsible Committee: **TC 9.10** (Laboratory Systems); Co-Sponsor: TC 2.3 (Gaseous Air Contaminants and Gas Contaminant Removal Equipment), TC 9.6 (Healthcare Facilities), and SSPC 62.1; Co-funding: None; Recommended Contractor: **University of Saskatchewan**; Estimated Duration: 15 months; Cost to ASHRAE: **\$186,892**
- **1824-RP**, *Accounting for the barometric pressure impacts on psychrometric performance testing of unitary air-conditioning and heat pump equipment*; Responsible Committee: **TC 8.11** (Unitary and room air conditioners and heat pumps); Co-Sponsor: SSPC 41; Co-funding: None; Recommended Contractor: **University of Louisiana - Lafayette**; Estimated Duration: 18 months; Cost to ASHRAE: **\$132,174**
- **1852-RP**, *Develop performance metric, criteria, and process to measure and predict speech privacy in high performance buildings*; Responsible Committee: **TC 2.6** (Sound and Vibration Control); Co-Sponsor: TC 4.4 (Building Materials and Building Envelope Performance); Co-funding: None; Recommended Contractor: **Soft dB Acoustical Consulting**; Estimated Duration: 24 months; Cost to ASHRAE: **\$144,645**
- **1883-URP**, *Development of the ASHRAE global occupant database*; Responsible Committee: **MTG.OBB** (Occupant Behavior in Buildings); Co-Sponsor: MTG member TCs; Recommended Contractor: **Syracuse University**; Estimated Duration: 18 months; Total Cost to ASHRAE: **\$60,663**

NEW PROJECTS LED BY OTHER NON-PROFITS THAT ARE CO-FUNDED BY ASHRAE

- **None currently**

PROJECTS THAT FAILED TO BE AWARDED

- **None currently**

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PROJECTS STILL PENDING AWARD

The following projects will be handled via a letter ballot vote by RAC following the Society meeting after additional information is provided by the sponsoring TCs on these projects:

- **1799-TRP**, *Validation of Extrapolation of Performance Rating Test Results for Small Energy Exchangers to Large Exchangers*; Responsible Committee: TC 5.5 (Air-to-Air Energy Recovery); Co-Sponsors: None; Co-funding: None; Estimated Duration: 15 months; Estimated Cost to ASHRAE: \$200,000; Status: Need Contractor recommendation and TC vote on *Summary Sheet for Reporting Proposal Evaluations* form from TC 5.5 or recommendation to rebid with revised WS and expanded recommended bidders list.
- **1817-TRP**, *Optical and Thermal Performance of Hollow Glass Block Units*; Responsible Committee: TC 4.5 (Fenestration); Co-Sponsors: None; Co-funding: None; Estimated Duration: 26 months; Estimated Cost to ASHRAE: \$197,000; Status: Need Contractor recommendation and TC vote on *Summary Sheet for Reporting Proposal Evaluations* form from TC 4.5 or recommendation to rebid with revised WS and expanded recommended bidders list.
- **1830-TRP**, *Experimental Characterization of Aircraft Bleed Air Particulate Contamination*; Responsible Committee: TC 9.3 (Transportation Air-Conditioning); Co-Sponsors: SSPC 161 (Air Quality within Commercial Aircraft); Co-funding: None; Estimated Duration: 18 months; Estimated Cost to ASHRAE: \$150,000; Status: Need Contractor recommendation and TC vote on *Summary Sheet for Reporting Proposal Evaluations* form from TC 9.3 or recommendation to rebid with revised WS and expanded bidders list.
- **1865-TRP**, *The Effects of Ventilation in Sleeping Environments*; Responsible Committee: TC 2.1 (Physiology and Human Environment); Co-Sponsors: None; Co-funding: None; Estimated Duration: 18 months; Estimated Cost to ASHRAE: \$250,000; Status: Need Contractor recommendation and TC vote on *Summary Sheet for Reporting Proposal Evaluations* form from TC 2.1 or recommendation to rebid with revised WS and expanded recommended bidders list.

POTENTIAL PROJECTS FOR BID IN SPRING 2020

A portion of following twelve tentative research projects (TRPs) are expected to be released for bid or re-bid this spring if ready by March 8th:

Approved Work Statements Available for Possible Bid in Spring 2020:

- **1566-TRP-C** (Conditional approval), *Equations to Estimate Evaporation Rates from Heated Water Pools in Indoor Recreational Aquatic Facilities*; Responsible Committee: TC 8.10 (Mechanical Dehumidification Equipment and Heat Pipes); Co-Sponsors: TC 9.8 (Large Building Air-Conditioning Applications); Co-funding: None; Estimated Duration: 24 months; Estimated Cost to ASHRAE: \$150,000; Status: **Work with RL to clear approval conditions to bid.**
- **1703-TRP-C** (Conditional approval), *Performance of Vapor Retarder System used on Mechanical Insulation*; Responsible Committee: TC 1.8 (Mechanical Systems Insulation); Co-Sponsors: TC 10.3 (Refrigerant Piping, Controls and Accessories), TC 4.4 (Building Materials and Building Envelope Performance); Co-funding: None; Estimated Duration: 12 months; Estimated Cost to ASHRAE: \$70,000; Status: **Work with RL to clear approval conditions to bid.**
- **1716-TRP-C** (Conditional Approval), *Oil Concentration of Field-Installed Liquid Chillers with Flooded Type Evaporators*; Responsible Committee: TC 8.2 (Centrifugal Machines); Co-Sponsors: None; Co-funding: None; Estimated Duration: 12 months; Estimated Cost to ASHRAE: \$135,000; Status: **Clear conditions with RL to bid**
- **1718-TRP-C** (Conditional Approval), *Development of a Method to Determine the Moisture Transport Through a Roof Shingle System Under Real Conditions*; Responsible Committee: TC 4.4 (Building Materials and Building Envelope Performance); Co-Sponsors: SSPC 160, TC 1.12

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- (Moisture Management in Buildings); Co-funding: None; Estimated Duration: 24 months; Estimated Cost to ASHRAE: \$160,000; Status: **Clear conditions with RL to bid**
- **1740-TRP-R** (Re-bid), *Hydrogen Fluoride Capacity of Desiccants*; Responsible Committee: **TC 3.3** (Refrigerant Contaminant Control); Co-Sponsors: TC 3.2 (Refrigerant System Chemistry); Co-funding: None; Estimated Duration: 9 months; Estimated Cost to ASHRAE: \$120,000; Status: **Rebid with revised WS and expanded recommended bidders list.**
 - **1789-TRP-R** (Re-bid) *Optical and Thermal Performance of Hollow Glass Block Units*; Responsible Committee: **TC 4.5** (Fenestration); Co-Sponsors: None; Co-funding: None; Estimated Duration: 18 months; Estimated Cost to ASHRAE: \$197,000; Status: **Rebid with revised WS and expanded recommended bidders list.**
 - **1790-TRP-R** (Re-bid), *Distribution of Water between Vapor and Liquid Phases of Low GWP Refrigerants*; Responsible Committee: **TC 3.3** (Refrigerant Contaminant Control); Co-Sponsors: None; Co-Funding: None; Estimated Duration: 12 months; Estimated Cost to ASHRAE: \$100,000; Status: **Rebid with revised WS and expanded recommended bidders list.**
 - **1797-TRP-C** (Conditional Approval) *Assessment of the A/B Toxicity Classification used in Standard 34*; Responsible Committee: **TC 4.4** (Building Materials and Building Envelope Performance); Co-Sponsors: None; Co-funding: None; Estimated Duration: 10 months; Estimated Cost to ASHRAE: \$75,000; Status: **Clear conditions with RL to bid**
 - **1816-TRP**, *Reporting the Energy use and Heat Gain from Imaging Equipment*; Responsible Committee: **TC 9.6** (Healthcare Facilities); Co-Sponsors: TC 4.1 (Load Calculation Data and Procedures); TC 4.7 (Energy Calculations); Co-Funding: None; Estimated Duration: 18 months; Estimated Cost to ASHRAE: \$150,000; Status: **Ready to Bid**
 - **1835-TRP** *Characterizing the Performance of Entrained Flow Stacks*; Responsible Committee: **TC 9.10** (Laboratory Systems); Co-Sponsors: TC 4.3 (Ventilation Requirements and Infiltration), TC 5.1 (Fans); Co-funding: None; Estimated Duration: 30 months; Estimated Cost to ASHRAE: \$245,000; Status: **Ready to Bid**
 - **1850-TRP-C** (Conditional Approval), *Evaluation of ASHRAE's Design Day Procedure Against Recorded Weather Data*; Responsible Committee: TC 4.2 (Climatic Information); Co-Sponsors: TC 4.1 (Load Calculation Data and Procedures), TC 6.5 (Radiant Heating and Cooling); Co-Funding: None; Estimated Duration: 9 months; Estimated Cost to ASHRAE: \$60,000; Status: **Clear conditions with RL to bid**
 - **1879-TRP-C** (Conditional Approval) *Foamability Properties of LGWP Refrigerant and Oil Mixtures*; Responsible Committee: **TC 3.4** (Lubrication); Co-Sponsors: TC 8.1 (Positive Displacement Compressors); Co-funding: None; Estimated Duration: 12 months; Estimated Cost to ASHRAE: \$100,000; Status: **Clear conditions with RL to bid**

WORK STATEMENTS REVIEWED AND APPROVED OR RETURNED WITH COMMENTS

Zero work statements were submitted by the TCs for review at the RAC winter meeting.

New or revised work statements can be submitted to the MORTS on or before March 15, 2020 to be considered at RAC's spring meeting or on or before May 15, 2020 in order to be considered at RAC's Annual meeting in Austin Texas this June. If a work statement can't be revised that quickly, the next scheduled deadline for RAC consideration is August 15, 2020.

WORK STATEMENTS PREVIOUSLY RETURNED TO TCs

TC/TGs should work with their Research Liaison to respond to written comments on the work statement provided by RAC via letter and revise the work statement appropriately. You can find a copy of the last draft submitted to RAC along with RAC’s comments by clicking on the links in the Society’s Research Implementation Plan posted on the “Research” page of the ASHRAE website. Please note that topics will be dropped from this plan if the work statement is not approved for bid after four years on the plan. The work statement forms that are now in use by RAC for Society year 2018-2019 can also be found on the “Research” page at www.ashrae.org/research

REVIEW OF RESEARCH TOPIC ACCEPTANCE REQUESTS (RTARs)

RAC reviewed a total of two RTARs at its winter meeting and **one** was accepted as-is, and **one** was accepted with comments for inclusion in the Society’s Research Implementation Plan and for further development into work statements. The following is a listing of all RTARs reviewed:

Approved RTARs:

- **1884-RTAR**, *The Incorporation of odorants in refrigerants to improve leak detection – Phase II experimental study* - Responsible Committee: TC 3.1 (Refrigerants and Secondary Coolants) Co-Sponsors: None; Status: Accepted as is. Proceed with the development of the project’s work statement with guidance and feedback from your RL. Prior to submitting the work statement to RAC, work with your RL to develop a response letter to RAC explaining how RAC’s comments on the RTAR were addressed in the work statement, and if not, why?
- **1891-RTAR**, *Assessment of tribological interactions of refrigerants and lubricants in HVAC systems* – Responsible Committee: TC 3.4 (Lubrication) Co-Sponsors: None; Status: Accepted w/comments. Proceed with the development of the project’s work statement with guidance and feedback from your RL. Prior to submitting the work statement to RAC, work with your RL to develop a response letter to RAC explaining how RAC’s comments on the RTAR were addressed in the work statement, and if not, why?

RTARs Returned with Comments or Rejected: None

If a TC wants to pursue a rejected topic further, we recommend the TC first review the RAC comments and then discuss scope and topic further with your RL before submitting a new RTAR.

The RTAR form that is now in use by RAC for Society year 2019-2020 can be found on the “Research” page of the ASHRAE website at www.ashrae.org/research.

The next submission date for RTARs and WSs is March 15, 2020. The standing RAC submission dates for new and revised RTARs and WSs are as follows each year:

- March 15 – RAC Spring meeting consideration in April
- May 15 – RAC Annual meeting consideration in June
- August 15 – RAC Fall meeting consideration in Sept. or Oct.
- December 15 – RAC Winter meeting consideration in January

Therefore, if you get **MMAD** each year, you won’t be as frustrated with RAC.

SOCIETY RESEARCH IMPLEMENTATION PLAN

The Society Research Implementation Plan is now being updated following the winter meeting of RAC. New RTARs will be added and tentative research project RFPs will be added or dropped depending upon their bid status. This change to the way the implementation plan is updated necessitated that time limits be placed on how long a topic can remain on the plan without being approved for bid. The winter updates to the plan should be in place by **March 1, 2020** or sooner. Please review the latest draft of the Implementation Plan posted on the ASHRAE “Research” page to see if any topics your TC is sponsoring are in danger of being dropped from the plan.

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DEADLINES

The following deadlines apply for the next several months. Please recognize that they are not arbitrarily set but are set to meet subsequent events. So, if you miss them, your input may be delayed for six months or in some cases, for a year. All research submissions should be sent to the Manager of Research and Technical Services (MORTS), Mike Vaughn, (morts@ashrae.net).

- February 17, 2020** Submission deadline for program proposals (seminars and forums) for the 2020 Annual meeting in Austin, TX. Conference Website: <https://www.ashrae.org/conferences/2020-annual-conference-austin-texas>
- February 18, 2020** Conference & Technical Paper Final Accept/Reject Notifications for 2019 Annual meeting in Kansas City, MO sent by CEC.
- February 20, 2020** Deadline for Program Track Suggestions to CEC for 2020 Annual Meeting in Austin, TX. – Send Suggestions to PRGstaff@ashrae.net
- March 1, 2020** Applications for ASHRAE Graduate Student Grant in Aid program are due to MORTS@ashrae.net
- March 2, 2020** Extended Abstracts Accept/Reject Notifications
- March 15, 2020** **New or revised Work Statements and RTARs with TC vote are due to MORTS for RAC consideration at the 2020 RAC Spring meeting.**
- March 16, 2020** Seminar, Forum, Workshop Accept/Reject Notifications for 2020 Annual meeting in Austin, TX sent by Conferences & Expositions Committee (CEC)
- March 31, 2020** TC/TG/TRG meeting minutes from the Orlando meeting are posted on TC website and distributed to membership by this date or sooner. Please make a special effort to meet this deadline. We have received complaints that many TC minutes are typically released just prior to the next Society meeting. Members outside of your committee are interested in your committee’s work.
- April 10, 2020** **Completed TC/TG/TRG Meeting room request web forms for 2020 Annual meeting are due to Lizzy Seymour (lseymour@ashrae.org) at ASHRAE HQ. A link to the form will be posted to the TC web page of the ASHRAE website soon. Subcommittee meeting rooms must be requested for each meeting, or they will be dropped automatically.** Also, consider hosting some subcommittee meetings in the weeks prior to the Annual meeting via conference call and/or web meeting to free-up time and space at the Annual meeting or if quorum is a concern to assure continued progress on critical items. The new on-line Meeting Room request form should also be used to request Remote Participation Meeting (RPM) capability for Austin meeting room. RPM capability will be assigned to the committees in greatest need if demand for RPM exceeds capacity. Lastly, **ASHRAE does NOT provide projectors, but ASHRAE will provide a screen, table, and power for a Members’ projector, if requested on the Meeting room request web form**
- May 15, 2020** **New or revised Work Statements and RTARs with TC vote are due to MORTS for RAC consideration at the 2020 RAC Annual meeting.**
- May 15, 2020** Bids are due for all TRPs released for bid in spring 2020.
- May 22, 2020** TC/TG/TRG meeting agenda for the Austin meeting are posted on TC website and distributed to membership. Please make a special effort to meet this

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deadline. We have received complaints that many TC agendas are released just prior to the TC's meeting.

- June 1, 2020** Website opens for Seminar, Forum, Debate, Workshop, and Panel Discussion Proposals for 2021 winter meeting in Chicago, IL.
- June 1, 2020** All PowerPoint presentations for the Austin meeting must be uploaded to ASHRAE website by this date for review.
- June 27, 2020** ASHRAE 2020 Annual conference begins in Austin, TX
- June 30th, 2020
Midnight** Contractor recommendations are due to MORTS for all TRPs bid in spring 2020. Place the Proposal Evaluation Summary sheet in MORTS lockbox outside ASHRAE Headquarters Room in Austin, TX or e-mail to MORTS@ashrae.net
- August 15, 2019** **New or revised Work Statements and RTARs with TC vote are due to MORTS for RAC consideration at the 2020 RAC Fall meeting.**
- TBD** Conference & Technical Paper Final Accept/Reject Notifications for 2021 Winter meeting in Chicago, IL sent by CEC.
- TBD** Chicago meeting Seminar, Forum, Debate, Panel Discussion, and Workshop Accept/Reject notifications sent by CEC.
- January 23, 2021** ASHRAE 2021 winter conference begins in Chicago, IL

OTHER NEWS:

A. ANNOUNCEMENTS

1. 2019-2020 George B. Hightower Technical Achievement Award Recipient – Devin Abellon, TC 6.5

Mr. Devin Abellon's has made significant contributions to ASHRAE & TC 6.5 over the past 4 years. His work as TC 6.5 Programs Subcommittee Chair, Devin has exemplified technical leadership by soliciting, organizing and proposing a variety programs on behalf of TC 6.5. From 2015 to 2018 Devin chaired 6 seminars and 1 panel discussion with 16 presentations with higher than average attendance and ratings. He put together a Radiant Heating and Cooling track at the Annual ASHRAE conference in Kansas City, MO. TC 6.5 sponsored 7 programs consisting of 22 presentations. The Radiant Heating and Cooling Mini-Track included a total of 10 programs with 35 presentations with radiant content at the conference.

Mr. Abellon is highly respected by his peers at TC 6.5 and within ASHRAE. He took on the role of TC 6.5 Handbook Chair when another chair unexpectedly resigned, while still serving as Programs Subcommittee Chair. He was instrumental in crafting a plan for a consolidated handbook chapter on Radiant Heating and Cooling and recruited 5 volunteers for the effort. He subsequently found a successor for TC 6.5 Programs Subcommittee Chair and is currently training them, so that the TC can continue with the same track record of success.

Mr. Abellon's contributions to ASHRAE technical committees, and especially to TC 6.5 in the last four years, make him a well deserving recipient of the George B. Hightower Technical Achievement Award.

2. 2019-2020 Service to ASHRAE Research Award – **No nominations submitted this year.**

Please take some time to recognize a hard-working research volunteer with-in your TC with a nomination for this award. Staff can assist you with a redacted copy of the member's Bio so that it is easier for you to document their eligibility for the award. Nominations for the 2020-2021 *Service to ASHRAE Research Award* for TC volunteer efforts in research are due to RAC research liaison by September 1, 2020. Please go to the Research page of the ASHRAE website at the following link under the "Research Grants and Awards" heading: <http://www.ashrae.org/research>

3. TAC approved the formation of a new Multidisciplinary Task Group (MTG) in Orlando:

Title: MTG.CYB (Cybersecurity for HVAC Systems and Related Infrastructure)

Scope: The scope of this MTG includes areas of Cybersecurity relevant to HVAC and related systems, infrastructure, and interfaces, including industry standards, advocacy and education. The scope includes the entire lifecycle of buildings, including building planning, design, construction and operation. The MTG will be active in Program to fulfill advocacy and education. The MTG would contribute to the Handbook by coordinating information in the section on cybersecurity. The MTG would also be active in Publications by production of guideline documents to assist ASHRAE members in implementing and developing cybersecurity designs and practices.

This MTG will include members from TC's 1.4, 1.5, 2.10, 7.5, 5.6, 7.9, 7.6, 9.9 and SSPC 135.

4. TAC approved the following scope change for TC 8.6, Cooling Towers and Evaporative Condensers:

Technical Committee TC 8.6 is concerned with open and closed circuit cooling towers, evaporative liquid coolers and condensers, adiabatic condensers and fluid coolers, spray ponds, and other types of contact type liquid-to-air heat exchangers and applications to rejection equipment along with their application and impact on complete HVAC, Industrial, and Refrigeration systems, including the associated energy and water usage as well as water treatment requirements.

5. TAC approved three TC mergers in Orlando that will be implemented in the next Society Year:

- TC 3.2, Refrigerant System Chemistry, and TC 3.3, Refrigerant Contaminant Control, merged into TC 3.2, Refrigerant System Chemistry and Contaminant Control
- TC 8.10, Mechanical Dehumidification Equipment and Heat Pumps, and TC 8.12, Desiccant Dehumidification Equipment and Components merged into TC 8.10, Mechanical and Desiccant Dehumidification Equipment, Heat Pipes and Components
- TC 9.4, Justice Facilities, and TC 9.8, Large Building Air-Conditioning Applications merged into TC 9.8, Large Building Air-Conditioning Applications

Many more mergers are being considered as part of the TAC TC re-organization effort.

6. 2019-2020 Homer Addams Award Recipient – Gabrielle Mc Morrow for her work on RP-1702

The Homer Addams Award is intended for a graduate student that worked on an ASHRAE research project in the past 2 years and lead authored a technical paper on the project results. This year's award recipient is Gabrielle Mc Morrow from University of Wyoming for her work on **RP-1702** (*Assessing the validity, reliability, and practicality of ASHRAE's performance measurement protocols*). The award includes a \$5,000 honorarium payment and the submission deadline for nominations each year is December 15th. For more information on this award, please go to the research page of the ASHRAE Website at www.ashrae/research.

7. TAC Section Heads & TC Chairs Participated in Student Welcome Event in Orlando

Some members of TAC and some TC Chairs participated in the Student Welcome activity titled "*Speed Poker*" in order to introduce students to technical committees in a fun way. The event was well received, and TAC intends to make this an annual event at the Student Welcome

B. REMINDERS & REQUESTS

1. 19-20 Rosters Access & Distribution

Remember, the current 2019-2020 roster for your TC, TG or MTG is in effect until after the June meeting this year. By now, each TC, TG and MTG chair should have received a PDF & MS-Excel file of their 2019-2020 roster from their Section Head for distribution to the committee. In addition, each member can view all of the rosters of their committees on the ASHRAE Website by logging into the member's only section at <http://ASHRAE.org/MyActiveCommittees>. Click on the "blue" roster text at the left-hand side of a committee to reveal the roster with linked contact information.

The new committee rosters for Society year 2020-2021 will be created based upon the update information that each TC, TG or MTG chair provides to their Section Head and staff using the Online roster update form.

2. Share Your Input for ASHRAE's next Research Strategic Plan – Important!

ASHRAE asks you for your input to the next Strategic Plan for ASHRAE RESEARCH. The Research Advisory Panel (RAP) is looking for your suggestions on emerging areas of research that should be included but may not have been fully appreciated by ASHRAE in the past. Please visit the survey link posted at the top on the following ASHRAE web page:

<https://www.ashrae.org/technical-resources/technical-committees>

Your input is crucial to guide RAP in its effort to update the Research Strategic Plan, and to bring it into alignment with the new Society wide Strategic Plan for ASHRAE.

Please complete the questionnaire before the end of February. It will take only 5 minutes of your time, unless you provide more detailed input which will be greatly appreciated!

3. The Society Refrigeration Committee now has a new name – Refrigeration Technology Committee for Comfort – Process – and Cold chain (REF-CPCC)

In addition to a new name, the committee now also has the following seven new subcommittees that will meet via web meetings between Society meetings so that participation costs for subcommittee members are low:

- Refrigeration Technology Report Subc. – Chair: Martin Dieryckx
- Awards Subc. – Chair: Ayman Eltalouny
- Cold Chain Subc. – Chair: Dustin Lilya
- HVAC Subc. – Chair: Walid Chakroun
- Program Subc. – Chair: Steven Gill
- Research Subc. – Chair: Yunho Hwang
- R in ASHRAE Subc. – Chair: Didier Coulomb

These new subcommittees are open to ALL interested TC volunteers for membership, particularly if you wish to possibly serve some day on the REF-CPCC committee as a voting member or serve as a liaison between REF-CPCC and your TC. The goal is to develop better lines of communication and coordination between HVAC and Cold Chain related TCs, Chapter RVCs, and REF-CPCC.

If interested, please contact Mike Vaughn at MORTS@ashrae.net for more information.

4. TC 19-20 E-mail Position Aliases list now Available

The 19-20 E-mail Alias list with the position aliases positions of the Technical Committee management team (Chair, Vice Chair, Secretary, Standard Sub. Chair, Program Sub. Chair, Handbook Sub. Chair, and Webmaster) is posted on the ASHRAE website www.ashrae.org/TCs under the heading Procedures, Forms & Information for TCs/TGs/MTGs and TRGs.

5. Option for TC Subcommittee Meetings via Conference Calls and Web Meetings

More and more TCs are taking advantage of a new Society service that allows TCs to hold subcommittee meetings by phone and/or web prior to a Society meeting. Many TCs are finding this to be a more efficient way for them to conduct subcommittee business and it also allows TC members that can't travel to meetings on a regular basis a way to still contribute to the TC. Such a change can also eliminate potential conflicts with the TC's program sessions at Society meetings. Please pass your conference call/web meeting/webinar requests on to the Manager of Technical Services, Steve Hammerling, at shammerling@ashrae.org or MOTS@ashrae.net.

6. The Professional Development Committee (PDC) seeks recommendations for new ASHRAE Learning Institute (ALI) courses.

An ongoing need exists for practical, instructor-led courses of broad interest. The content would focus on new technologies, fundamentals, standard applications, and new design guides. The objective is to provide quality, authoritative and practical technical information of broad interest. Contact Karen Murray (ASHRAE staff) at kmurray@ashrae.org or Charles Henck (PDC chair) at PDCchair@ashrae.net with new course ideas.

7. TAC Presentation template Available for TC members to use with local Chapter

The presentation template allows TC members, without a lot of effort, to give a presentation to their local chapter on TAC and the TCs in general and to also customize a few slides with information specific to their own TC or TCs. The template is posted now on the Technical Committee page of the ASHRAE website for download - <http://www.ashrae.org/tcs>

C. UPCOMING WORKSHOPS, CONFERENCES AND EVENTS – 2020/2021

1. **13th IEA Heat Pump Conference** – May 11 to 14, 2020 – Ramada Plaza Hotel, Jeju, Korea – <http://www.hpc2020.org> - Abstract Submission Deadline extended to June 30, 2019. See handout at end of this document

2. **2020 Building Performance Analysis Conference & SimBuild** Co-organized by ASHRAE and IBPSA-USA – August 12-14, 2020 – Chicago, IL - www.ashrae.org/buildperform2020.
3. **Ventilation 2021: 13th International Ventilation Conference for Contaminant Control** – August 15-18, 2021 – Toronto, Canada – www.ashrae.org/ventilation2021.
4. **IAQ 2020: Indoor Environmental Quality Performance Approaches: Transitioning from IAQ to IEQ** – September 14-16, 2020 – Athens, Greece - www.ashrae.org/iaq2020
5. **4th International Conference on Efficient Building Design: Materials and HVAC Equipment Technologies** – October 1-2, 2020 – Beirut, Lebanon – www.ashrae.org/beirut.
6. **AHR Expo 2021** – January 25-28, 2021 – Chicago, IL - <https://ahrexpo.com/>

D. UPCOMING TC AWARD NOMINATION SUBMISSION DEADLINES

2020-2021 Hightower Award Nomination Process and Deadline

Nominations for the 2019-2020 George B. Hightower Technical Achievement Award are due to your Section Head by September 1, 2020. The award recognizes outstanding technical leadership and contributions on a TC/TG/TRG during the past four years, excluding research and standards activities. Please go to the Technical Committee page of the ASHRAE website at the following link under the “Procedures and Forms...” heading: <http://www.ashrae.org/tcs>

2020-2021 Service to ASHRAE Research Award Nomination Process and Deadline

Nominations for the 2019-2020 Service to ASHRAE Research Award for TC volunteer efforts in research are due to RAC research liaison by September 1, 2020. Please go to the Research page of the ASHRAE website at the following link under the “Research Grants and Awards” heading: <http://www.ashrae.org/research>

Please let us know if we can be of any other assistance.

Sincerely,

Mike Vaughn and Steve Hammerling