POTENTIAL PROJECTS FOR POSSIBLE BID IN FALL 2019

A portion of the following seventeen tentative research projects (TRPs) will be considered at RAC’s Fall meeting for possible bid or re-bid. Bids for all projects released in fall 2019 are due Monday, December 16th:

Potential Projects to Release for Bid in fall 2019 if ready:

* **1566-TRP-C**, *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: **Clear RAC Approval conditions with RL.**
* **1683-TRP-R** (Re-bid), *Experimental Evaluation of Two-Phase Pressure Drop and Flow Pattern in U-bends with Ammonia - Rebid*; Responsible Committee: **TC 1.3** (Heat Transfer and Fluid Flow); Co-Sponsors: TC 8.4 (Air-to-Refrigerant Heat Transfer Equipment); Co-funding: None; Estimated Duration: 30 months; Estimated Cost to ASHRAE: $150,000; Status: **Rebid with revised WS and expanded recommended bidders list.** Project will most likely rebid in fall 2019 solicitation.
* **1716-TRP-C**, *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 RAC Approval conditions with RL.**
* **1718-TRP-C**, *Development of a Method to Determine the Moisture Transport through Roof Shingle System Under Real Conditions;* Responsible Committee: **TC 4.4** (Building Materials and Building Envelope Performance); Co-Sponsors: TC 1.12 (Moisture Management in Buildings), SSPC 160; Co-funding: None; Estimated Duration: 24 months; Estimated Cost to ASHRAE: $160,000; Status: **Clear RAC Approval conditions with RL.**
* **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); Estimated Duration: 9 months; Estimated Cost to ASHRAE: $120,000; Status: **Rebid with revised WS and expanded recommended bidders list.** Zero bids received last time project bid.
* **1780-TRP-R** (Re-bid), *Test Method to Evaluate Cross-contamination of Gaseous Contaminant within total Energy Recovery Wheels*; Responsible Committee: **TC 9.10** (Laboratory Ventilation); Co-Sponsors: TC 2.3 (Gaseous Air Contaminants and Gas Contaminant Removal Equipment); TC 9.6 (Healthcare Facilities); SSPC 2.1 (Ventilation for Acceptable Indoor Air Quality); Co-funding: None; Estimated Duration: 15 months; Estimated Cost to ASHRAE: $200,000; 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** *Assessment of the A/B Toxicity Classification Used in Standard 34;* Responsible Committee: **TC 3.1** (Refrigerants and Secondary Coolants); Co-Sponsors: None; Co-funding: None; Estimated Duration: 10 months; Estimated Cost to ASHRAE: $75,000; Status: **Clear RAC Approval conditions with RL.**
* **1799-TRP-C**, *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-sponsor: None; Co-funding: None; Estimated Duration: 12 months; Estimated Cost to ASHRAE: $200,000; Status: **Conditionally Accepted**. Work with Research Liaison (RL) to clear RAC’s conditions so project can bid.
* **1815-TRP-C** *Integrating Occupant Behavior Data into Building Performance Simulation;* Responsible Committee: **MTG.OBB** (Occupant Behavior In Buildings); Co-Sponsors: MTG.BIM, TC 1.5; Co-funding: None; Estimated Duration: 18 months; Estimated Cost to ASHRAE: $120,000; Status: **Clear RAC Approval conditions with RL.**
* **1817-TRP-C**, *Long-term Temperature Change of Ground Heat Exchangers*; Responsible Committee: **TC 6.8** (Geothermal Heat Pump and Energy Recovery Applications) – Co-Sponsor: None; Co-funding: None; Estimated Duration: 21 months; Estimated Cost to ASHRAE: $180k to $215k; Status: **Conditionally Accepted**. Work with Research Liaison (RL) to clear RAC’s conditions so project can bid.
* **1824-TRP** *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(Standard Methods of Measurement); Co-funding: None; Estimated Duration: 18 months; Estimated Cost to ASHRAE: $150,000; Status: **Ready to Bid. Work with staff to develop RFP.**
* **1830-TRP-R** (Re-bid), *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: **Rebid with revised WS and expanded recommended bidders list.**
* 1852-TRP-C, *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; Estimated Duration: 24 months; Estimated Cost to ASHRAE: $187,000; Status: Conditionally Accepted. Work with Research Liaison (RL) to clear RAC’s conditions so project can bid.
* 1865-TRP-C, *Optimizing Supply Air Temperature Control for Dedicated Outdoor Air Systems*– Responsible Committee: TC 1.4 (Control Theory and Application) - Co-sponsor: None; Co-funding: None; Estimated Duration: 24 months; Estimated Cost to ASHRAE: $180,000; Status: Conditionally Accepted. Work with Research Liaison (RL) to clear RAC’s conditions so project can bid.
* **1879-TRP-C**, *Formability Properties of LGWP Refrigerant and Oil Mixtures*;

Responsible Committee: **TC 3.4** (Occupant Behavior In Buildings); Co-Sponsors: TC 8.1 (Positive Displacement Compressors); Co-funding: None; Estimated Duration: 12 months; Estimated Cost to ASHRAE: $100,000; Status: **Clear RAC Approval conditions with RL.**