

THE RESEARCH & TECHNICAL ACTIVITIES REPORT

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FOR TC/TG/SSPC CHAIRS, VICE CHAIRS &
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ASHRAE 2011 WINTER MEETING

The winter meetings of the Research Administration Committee (RAC), Technical Activities Committee (TAC), Technology Council, and the Board were completed last week in Las Vegas, NV.

NEW PROJECTS AWARDED

The following three projects were approved for award as follows:

- **1580-RP**, “*Study of Input Parameters for Risk Assessment of 2L Flammable Refrigerants in Residential Air Conditioning and Small Commercial Refrigeration Applications;*” Responsible Committee: **TC 3.1** (Refrigerants and Secondary Coolants); Co-Sponsor (s): None; Contractor: Navigant Consulting, Inc.; Duration: 12 months; Cost to ASHRAE: \$250,000; Supports Research Strategic Goals: D2, D3 (05-10) Plan
- **1613-RP**, “*Update Climatic Design Data in Chapter 14 of the 2013 Handbook of Fundamentals;*” Responsible Committee: **TC 4.2** (Climatic Information); Co-Sponsor (s): None; Contractor: Numerical Logics Inc.; Duration: 18 months; Cost to ASHRAE: \$138,477; Supports Research Strategic Goals: A6, A7, B2, C7, D1 (05-10) Plan
- **1633-RP**, “*Data and Interfaces for Advanced Building Maintenance and Operation;*” Responsible Committee: **TC 1.4** (Control Theory and Application); Co-Sponsor (s): TC 7.5 (Smart Building Systems), TC 7.6 (Building energy Performance), and TC 7.9 (Building Commissioning); Contractor: KGS Buildings LLC.; Duration: 24 months; Cost to ASHRAE: \$266,570; Supports Research Strategic Goals: A7, B2, C6 (05-10) #1 (10-15) Plan

POTENTIAL PROJECTS FOR BID IN SPRING 2011

A portion (seventeen) of the following twenty-five tentative research projects that have been approved for bid are expected to be released for bid this spring.

Approved Work Statements to Release for Bid Spring 2011:

- **1399-TRP**, “*Survey of Particle Production Rates from Process Activities in Pharmaceutical and Biological Cleanrooms;*” Responsible Committee: **TC 9.11** (Clean Spaces); Status: **Ready to Bid.**
- **1410-TRP**, “*Effect of System Chemicals toward the Breakdown of Lubricants and Refrigerants;*” Responsible Committee: **TC 3.2** (Refrigerant System Chemistry). Status: **Ready to Bid.**
- **1413-TRP**, “*Developing Standard Procedures for Filling Climatic Data-Gaps for Use in Building Performance Monitoring and Analysis;*” Responsible Committee: **TC 4.2** (Climatic Information); Status: **Ready to Bid.**
- **1458-TRP**, “*Modeling Person-to-Person Contaminant Transport in a Mechanical Ventilation Space;*” Responsible Committee: **TC 4.10** (Indoor Environmental Modeling); Status: **Ready to Bid.**

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- **1495-TRP**, “*Effect of Lubricant on the Distribution of Water Between the Vapor and Liquid Phases of Refrigerants;*” Responsible Committee: TC 3.3 (Refrigerant Contaminant Control); Status: **Ready to Bid.**
- **1499-TRP**, “*The Effect of Humidity on the Reliability of ICT Equipment in Data Centers;*” Responsible Committee: TC 9.9 (Mission Critical Facilities, Technology Spaces and Electronic Equipment); Status: **Ready to Bid.**
- **1504-TRP**, “*Extension of the Clothing Insulation Database for Standard 55 and ISO 7730 to Provide Data for Non-Western Clothing Ensembles, Including Data on the Effect of Posture and Air Movement on that Insulation;*” Responsible Committee: TC 2.1 (Physiology & Human Environment); Status: **Ready to Bid.**
- **1550-TRP**, “*Thermal Performance of Insulating Coating;*” Responsible Committee: TC 1.8 (Mechanical System Insulation); Status: **Ready to Bid.**
- **1557-TRP**, “*Lab Comparison of Relative Performance of Gas Phase Filtration Media at High and Low Challenge Concentrations;*” Responsible Committee: TC 2.3 (Gaseous Air Contaminants and Gas Contaminant Removal Equipment); Status: **Ready to Bid.**
- **1564-TRP**, “*Measurement of Oil Retention in the Microchannel Heat Exchanger;*” Responsible Committee: TC 8.4 (Air to Refrigerant Heat Transfer Equipment); Status: **Ready to Bid.**
- **1565-TRP**, “*Development of the ASHRAE Design Guide for Dedicated Outdoor-Air Systems;*” Responsible Committee: TC 8.10 (Mechanical Dehumidification Equipment and Heat Pipes); Status: **Ready to Bid.**
- **1581-TRP**, “*Develop Alternate Set-up Guidelines for Unitary Air Conditioner Test Configurations Which Cannot Adhere to ASHRAE 37 /ASHRAE 116 specified Duct Dimensions and External Pressure Tap Locations;*” Responsible Committee: TC 8.11 (Unitary and Room Air Conditioners and Heat Pumps) ; Status: **Ready to Bid. Potential \$10k in co-funding from AHRTI**
- **1584-TRP**, “*Assessment of Alternative Approaches to Predicting the Burning Velocity of a Refrigerant;*” Responsible Committee: TC 3.1 (Refrigerants and Secondary Coolants). Status: **Ready to Bid. Potential \$15k in co-funding from AHRTI**
- **1592-TRP**, “*CHP Design Guide – Update to the Cogeneration Design Guide (1996);*” Responsible Committee: TC 1.10 (Cogeneration Systems); Status: **Ready to Bid.**
- **1603-TRP**, “*Role of HVAC Systems in the Transmission of Infectious Agents in Buildings and Intermodal Transportation;*” Responsible Committee: TC 9.3 (Transportation Air Conditioning); Status: **Ready to Bid.**
- **1604-TRP**, “*Demand Controlled Filtration for Clean Rooms;*” Responsible Committee: TC 9.11 (Clean Spaces); Status: **Ready to Bid.**
- **1606-TRP**, “*Laboratory Testing of Flat Oval Transitions to Determine Loss Coefficients;*” Responsible Committee: TC 5.2 (Duct Design); Status: **Ready to Bid.**

Approved Work Statements Still On-Hold for Bid:

- **1447-TRP**, “*Performance of Pressurized Stairwells with Open Doors;*” Responsible Committee: **TC 5.6** (Control of Fire and Smoke); Status: **Ready to Bid.**
- **1462-TRP**, “*Active Mechanisms for Enhancing Heat and Mass Transfer in Sorption Fluids;*” Responsible Committee: **TC 8.3** (Absorption and Heat Operated Machines); Status: **Ready to Bid.**
- **1491-TRP**, “*Literature and Product Review and Cost Benefit Analysis of Commercially Available Ozone Air Cleaning for HVAC Systems;*” Responsible Committee: **EHC** (Environmental Health Committee); Status: **Accepted for bid 11.01.** Work with MORTS to finalize RFP so project can possibly bid fall 2011.
- **1529-TRP**, “*Full-Frequency Numerical Modeling of Sound Transmission in and Radiation from Lined Ducts;*” Responsible Committee: **TC 2.6** (Sound and Vibration Control); Status: **Ready to Bid.**
- **1535-TRP-C**, “*A Heat Transfer and Friction Factor Correlation for Low Air-side Reynolds Number Applications of Compact Heat Exchangers;*” Responsible Committee: **TC 8.4** (Air-to-Refrigerant Heat Transfer Equipment); Status: **Conditionally accepted for bid 11.01.** Work with Research Liaison to resolve RAC’s approval conditions by so that project can possibly bid in fall 2011.
- **1546-TRP**, “*Expansion and Updating of the Air Diffusion Performance Index Method;*” Responsible Committee: **TC 5.3** (Room Air Distribution); Status: **Accepted for bid 11.01.** Work with MORTS to finalize RFP by September 15th so project can possibly bid fall 2011.
- **1556-TRP**, “*Characterization of Liquid Refrigerant Flow Emerging from a Flooded Evaporator Tube Bundle;*” Responsible Committee: **TC 1.3** (Heat Transfer and Fluid Flow); Status: **Ready to Bid.**
- **1602-TRP**, “*Thermal-Fluid Behavior of Mixed Refrigerants for Cryogenic Applications;*” Responsible Committee: **TC 10.4** (Ultra-Low Temperature Systems and Cryogenics); Status: **Accepted for bid 10.10.** Work with MORTS to finalize RFP by September 15th so project can possibly bid fall 2011.

Work statements for the projects listed above without the status “Ready to Bid” require additional information or work from the TC on the draft RFP before they are eligible for possible bid in fall 2011. Revised work statements or approved RFPs for these projects must be submitted to the MORTS on or before September 15th, 2011 in order to be eligible and ready to possibly bid or rebid in fall 2011.