

**MANUAL OF PROCEDURES**

**for**

**RESEARCH ADMINISTRATION  
COMMITTEE**

**REVISED: 11-07-01**

# **MANUAL OF PROCEDURES FOR RESEARCH ADMINISTRATION COMMITTEE**

## **FOREWORD**

The Research Administrative Committee (RAC) is a General Standing Committee of the Society and operates under the direction of the Board of Directors and Technology Council. The Rules of the Board (ROB) for the Research Administration Committee (RAC) is the constitution of the committee. Proposed changes to the ROB and its appendices must be done in accordance with ROB 3.400, Section 10.3 and approved by the Board of Directors.

This Manual of Procedures (MOP) is a supplement to the RAC BAR that describes the methods and procedures by which RAC accomplishes the duties and responsibilities assigned to it. The MOP is an internal document of the committee for its own guidance. The MOP, and revision thereto, following approval by the committee, shall be submitted to Technology Council or designated council subcommittee for approval. (ROB 520-106-001)

Proposed RAC MOP and ROB changes shall normally only be presented to Technology Council for approval once a year for consideration at their fall meeting. Proposed changes that RAC believes require more immediate attention shall first be presented to the chair of Technology Council for permission to submit to Technology Council.

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BOD	Board of Directors
DAL	Director-at-Large
EHC	Environmental Health Committee
GIA	Grant-In-Aid
H&A	Honors and Awards Committee
MBO	Management By Objectives
MOP	Manual of Procedures
MORTS	Manager of Research & Technical Services
MTG	Multidisciplinary Task Group
PES	Proposal Evaluation Subcommittee
PMS	Project Monitoring Subcommittee
RAC	Research Administration Committee
RAP	Research Advisory Panel
RAS	Research Activities Subcommittee
RFP	Request for Proposal
RIP	Research Implementation Plan
RSP	Research Strategic Plan
RPS	Research Planning Subcommittee
ROB	Rule(s) of the Board of Directors
RRO	Robert's Rules of Order
RTAR	Research Topic Acceptance Request
SBL	Society's Bylaw(s)
SPC	Standard Project Committee
SSPC	Standing Standard Project Committee
TAC	Technical Activities Committee
Tech C	Technology Council
TC	Technical Committee
TG	Task Group
TRG	Technical Resource Group
TRP	Tentative Research Project
WS	Work Statement

## **SECTION A - RESEARCH ADMINISTRATION COMMITTEE (RAC)**

### **Part 1 Responsibilities/Duties**

- A.1.1 The RAC shall plan and coordinate research and technical studies and provide for dissemination of the results.
- A.1.2 The RAC shall be responsible for notifying Technology Council every eight years when a new Research Advisory Panel (RAP) [see Section F] needs to be established to develop a new Strategic Plan for ASHRAE Research. Between major updates, RAC will review the Research Strategic Plan on an annual basis to modify, add, or delete goals as needed to better reflect the current strategic research needs of ASHRAE. [ROB 2.421.004.3]
- A.1.3 RAC shall maintain and keep current a Research Manual describing the process to plan, initiate and disseminate results of a research project. Changes to the Research Manual may be approved by a majority of RAC voting members.
- A.1.4 RAC shall maintain and keep current a Reference Manual describing the other procedures followed by RAC that are not covered in the Research Manual. Changes to the Reference Manual may be approved by a majority of RAC voting members.
- A.1.5 The RAC shall coordinate and cooperate with other committees whose activities involve research in order to achieve the Society's objectives.
- A.1.6 RAC will annually solicit nominations, select a recipient, and administer research grant payments from the research fund for the RAC *New Investigator Award*.
- A.1.7 RAC will annually solicit nominations and recommend to the Honors and Awards Committee for submittal to the Board for final approval a recipient for the Society's *Homer Addams Award*.
- A.1.8 RAC will annually solicit nominations from the TCs and recommend to the Honors and Awards Committee for submittal to the Board for final approval a recipient for the Society's *Service to ASHRAE Research Award*.
- A.1.9 RAC will annually solicit applications, select multiple recipients, and administer grant and honorarium payments from the research fund for the RAC *Graduate Student Grant-in-Aid Program*.
- A.1.10 RAC will annually solicit nominations, have the option of selecting or not selecting a recipient, and, if selected, administers research grant payments from the research fund for the RAC *ASHRAE Innovative Research Grant*.

A.1.11 The RAC shall be responsible for periodically reviewing and for suggesting to Technology Council for approval proposed change to Appendix A – *Model Research Agreement*

A.1.12 RAC will annually solicit applications, have the option of selecting up to ten recipients annually, and, if selected, administer a maximum grant payment of \$2,500 each from the research fund for the *ASHRAE Research – International Dissemination Travel Grant Program*

## Part 2 Membership

A2.1 The Research Administration Committee (RAC) shall consist of 14 voting members as described in ROB 2.421.002.

A2.2 RAC membership may include non-voting consultants who are members of organizations that cooperate with ASHRAE on defining, sponsoring, and/or disseminating HVAC&R-related research.

## Part 3 Meetings

A3.1 Normally the RAC shall meet four (4) times per year, at the Annual and Winter Meetings of the Society and at the Fall and Spring meetings. Fall and Spring meetings may be held via teleconference and/or Internet , at the discretion of the RAC chair. A quorum shall consist of a majority of the RAC, present in person for face-to-face meetings or by telephone or Web for electronic meetings.

## Part 4 Operations

A4.1 Any member of RAC is eligible to introduce motions or items for consideration.

A4.2 All non-fiscal matters shall be decided by a simple majority of those voting (excluding abstentions). Approval of fiscal matters requires a two-thirds majority of those voting (excluding abstentions). For letter or e-mail ballots, all committee members are considered present.

## **SECTION B - CHAIR AND VICE CHAIR**

### Part 1 Selection

B1.1 The Chair and Vice Chair of the RAC are nominated by the President-Elect of the Society from the current membership of the RAC and elected by the Board of Directors to serve one-year terms commencing at the close of the next Annual Meeting of the Society. (ROB 554-002-003)

### Part 2 Responsibilities of the Chair

- B2.1 The Chair of the RAC is responsible for the organization of the RAC.
- B2.2 The Chair shall preside over all meetings of the RAC and the RAC Executive Committee.
- B2.2.1 With the advice of the Manager of Research & Technical Services (MORTS) and RAC members, the Chair shall be responsible for the preparation of agendas for meetings of the RAC and the RAC Executive Committee.
- B2.2.2 The Chair shall be responsible for ensuring that the MORTS provides minutes of the meetings of the RAC and the RAC Executive Committee.
- B2.3 The Chair shall annually designate members of the RAC to serve as Research Liaisons to technical committees – and to standards and standing committees as needed –during each Society year.
- B2.3 The Chair shall appoint ad hoc committees or working groups from the membership of the RAC or the Society whenever necessary in order to assist in fulfilling his/her responsibilities.
- B2.5 The Chair shall appoint other committees and representatives:
- a) A member of the RAC to serve as an ex-officio member of the Research Promotion Committee.
  - b) Such other committees or representatives of the RAC as directed by the President or the Board of Directors or as requested by the other standing committees of the Society.
- B2.6 After approval of the RAC and with assistance from the MORTS, the Chair shall inform Technology Council and/or BOD of its recommendations for research projects and technical studies, recipients of the GIA, New Investigator award, and the Homer Addams award. Where approval by Technology council or the BOD is required, RAC shall submit its recommendations in consensus agenda format.
- B2.7 With the assistance of the MORTS, the Chair shall prepare and submit to the Technology Council and the BOD through the Executive Director, a semi-annual report, an annual report, and such other reports as are required to be submitted to the Board. The Chair shall submit a written or an oral report at the fall and spring meetings of the Technology Council.
- B2.8 The Chair shall be responsible for Society communications from the Committee to the ASHRAE *Journal/Insights* , ASHRAE Web site, Members First Newsletter, and any other communication vehicles used by the Society. He/she shall use the appropriate communications vehicles to inform Society membership and to publicize the research program, and other items of current significant interest concerning the operation of the RAC.

B2.9 Prior to the Society Annual meeting, the individual who will be the next year's chair will prepare objectives for the RAC for the next year and present these objectives to the RAC for review at the committee meeting held during the Society Annual Meeting. The objectives will be included in the RAC's report to Technology Council at the Annual Meeting as an information item, and a copy of the objectives will be sent to headquarters staff (Assistant to the BOD).

Each objective should be measurable if possible and should include a projected completion date, fiscal impact (if any) and other information that would clarify the intent of the objective. If an objective is to be assigned to a specific member or subcommittee of the committee, this should also be included.

A status report of the objectives will be included in the committee report submitted to the council at the Society winter meeting, and a copy of the objectives will be sent to headquarters staff (Assistant to the BOD).

A final report of the objectives will be included in the committee report submitted to the council at the Society annual meeting, and a copy of the objectives will be sent to headquarters staff (Assistant to the BOD). The objectives prepared by the committee vice chair for the next year (or by the individual who will be the next year's chair) will also be included in this report.

B2.10 The Chair shall appoint mentors for all new members of RAC.

B2.11 The Chair shall serve as a member of the Technology Council, with subcommittee membership or other duties to be determined by Technology Council. The Chair can call upon RAC membership and MORTS for assistance or guidance in meeting Technology Council requirements.

### Part 3 Responsibilities of the Vice Chair

B3.1 In the absence of the Chair, the Vice Chair shall assume the chair at any scheduled or called meeting of the RAC or its Executive Committee.

B3.2 The Vice Chair shall be a member of the Executive Committee, of the RAC and of the Research Advisory Panel, and the Research Activities Subcommittee of the RAC.

B3.3 The Vice Chair shall serve as a member of the Technology Council, with subcommittee membership or other duties to be determined by Technology Council. The Vice Chair can call upon RAC membership and MORTS for assistance or guidance in meeting Technology Council requirements.

B3.4 The Vice Chair shall perform other duties, which may be assigned to him/her by the Chair.

- B3.5 In the event the Chair is unable to perform his/her duty, the Vice Chair shall assume all of the duties of the Chair until a successor is selected.
- B3.6 The Vice Chair shall serve as Liaison to the Technical Activities Committee.
- B3.7 The Vice Chair shall serve as Liaison to the Research Promotion Committee.
- B3.8 Prior to the Society annual meeting, the committee vice chair or the individual who will be the next year's chair will appoint members of the RAC to the RAC standing subcommittees and shall designate each subcommittee's Chair.

### **SECTION C - EXECUTIVE COMMITTEE**

#### **Part 1 Responsibilities**

- C1.1 The Research Administration Executive Committee (ExCom) shall have the following responsibilities:
  - a) Recommend changes in policy.
  - b) Assist in preparation of budgets for the RAC.
  - c) Assist in preparation of agendas for RAC meetings.
  - d) Periodically review the ROB and MOP.

#### **Part 2 Membership**

- C2.1 The members of the Research Administration Executive Committee include the RAC Chair and Vice Chair and the chairs of the standing subcommittees.
- C2.2 The following Ex-Officio members of the Research Administration Executive Committee may participate in the discussions but are not eligible to vote:
  - Manager of Research & Technical Services
  - Director of Technology
  - Board Ex-Officio
  - Coordinating Officer
  - Consultants to the RAC

#### **Part 3 Meetings**

- C3.1 The Research Administration Executive Committee shall meet before the scheduled times of first meetings of the RAC.
  - C3.1.1 The time of meeting shall be determined by the Chair in consideration of the responsibilities and convenience of the members.
  - C3.1.2 The meeting will be held at the same location as the meeting of the RAC.

- C3.1.3 Meetings are open to all members of the RAC, all Society members, all registered guests at scheduled Society meetings, and those invited by the Chair.
- C3.2 Special meetings, in addition to the regular meetings required in paragraph C3.1, may be called by the Chair when, in his/her opinion, an urgent action is required.
  - C3.2.1 The Chair will designate the time and place of special meetings.
  - C3.2.2 The Chair shall report all actions taken by the Executive Committee at special meetings at the next meeting of the RAC.
- C3.3 The Chair is responsible for ensuring that a written notice or electronic of a meeting is sent to all members, ex-officio members, members of the RAC and invited individuals.
  - C3.3.1 The Chair is responsible for the preparation of an agenda, with supporting exhibits, of the business to be transacted at the meeting. The agenda shall be sent in advance to those receiving notice of the meeting.
- C3.4 The Chair is responsible for the preparation of minutes of the meeting and their distribution to all who received notice of the meeting.
- C3.5 The Chair shall report the recommendations of the Executive Committee to the RAC.

#### **SECTION D - SUBCOMMITTEES**

- D1.1 Standing Subcommittees of RAC are determined by the Chair. Their membership and duties shall be defined in the RAC Reference Manual.
- D1.2 Ad hoc subcommittees may be appointed by the Chair of the Committee.
- D1.3 The Chair shall appoint the members of each subcommittee. Subcommittee members should be members of the Committee, but the Chair may appoint additional subcommittee members who are not members of RAC when there is a need for members who have experience in areas that are of immediate importance to RAC.
- D1.4 Subcommittee members are appointed for the Society year. If a member's term of service on the Committee continues into the next Society year, he/she may be reappointed to the same subcommittee or be appointed to a different subcommittee by the incoming Chair.

#### **SECTION E - RESEARCH LIAISONS**

- E1.1 A Research Liaison shall be a member of the RAC who has been designated by the Chair to liaise on research matters with TCs, TGs, MTGs and TRGs, which are assigned to a Section.

- E1.2 Sections are groups of TCs, TGs, MTGs and TRGs, which have been formed and assigned by the TAC according to fields of interest or for administrative purposes.
- E1.3 Each Research Liaison's responsibilities are as described in Section B of the RAC Reference Manual.

## **SECTION F – RESEARCH ADVISORY PANEL**

### **Part 1 Purpose**

- F1.1 The purpose of the Research Advisory Panel (RAP) is to develop the strategic research plan for the Society. This strategic plan shall be updated every eight years. Following an update, RAP will disband and the panel will cease to exist for five years. RAP will be reconstituted by Technology Council in the latter half of the fifth year of the 8-year update cycle.

### **Part 2 Membership**

- F2.1 The membership qualifications and appointment procedures are specified in the Technology Council MOP

### **Part 3 Meetings**

- F3.1 RAP will meet two (2) times each year at the winter and Annual Society meetings during its 3-year term.
  - F3.1.1 The Chair of RAP shall determine the time of meeting in consideration of the responsibilities and convenience of the members.
  - F3.1.2 The meeting shall be at the location of the RAC meetings.
  - F3.1.3 A quorum shall consist of a majority of the panel membership.
- F3.2 Attendance at RAP meetings is open to all Society members, to all registered for Society meetings, and to those invited by the Chair.
  - F3.2.1 All guests shall be permitted to participate in discussion at the discretion of the Chair, but none shall have voting rights.
- F3.3 The Chair is responsible for ensuring that a written notice of a meeting including an agenda with support materials, be sent not less than fifteen (15) days before the date of the meeting to all members, Chair of the Research Administration Committee, and the MORTS.
- F3.4 In addition to Society meetings, RAP may request additional meetings to gather additional information with approval of RAC.

#### Part 4 Responsibilities

- F4.1 RAP shall have responsibility for collecting and evaluating information on leading-edge technology of interest to and bearing on the HVAC&R industry and to develop the 8-year strategic research plan. Where appropriate, RAP shall also recommend modification to policies and procedures that make research into these areas more feasible.

#### Part 5 Minutes and Reports

- F5.1 The RAP Chair shall be responsible for the preparation and distribution of minutes and reports of RAP meetings.

F5.1.1 The RAP Chair shall report RAP activities at the appropriate point in the agenda of the RAC meeting.

F5.1.2 The RAP Chair or designee shall make recommendations for RAC action.

**APPENDICES:**

**APPENDIX A MODEL RESEARCH AGREEMENT**

**RESEARCH AGREEMENT**

This Research Agreement (the "Agreement") with an effective date of XXX is between American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (the "Society") with a principal place of business at 1791 Tullie Circle, NE, Atlanta, GA 30329 and (the "Institution") XXX, with a principal place of business at XXXX.

Whereas, the Society has indicated a desire to undertake a research project relating to "XXX; and,

WHEREAS, the Institution represents that they have the necessary knowledge, expertise and capability to perform the Services;

NOW, THEREFORE, the parties hereto, in consideration of the mutual promises and undertakings herein contained do thereby mutually promise and agree as follows:

**ARTICLE I - STATEMENT OF WORK**

The Institution shall perform the Services described in the proposal entitled, "XXX)," dated XXX. The proposal is hereby made a part of this Agreement by reference and designated Appendix A.

**ARTICLE II - TYPE OF AGREEMENT**

This Agreement shall be a fixed sum contract in the amount of \$XXX which shall include, but not necessarily be limited to: actual direct labor, materials, travel, subcontracts, employee benefits, general and administrative expenses and overhead, as specified in the proposal.

**ARTICLE III - PERIOD OF PERFORMANCE**

The period of performance shall be from XXX to XXX unless terminated at an earlier date pursuant to the general provision of GENERAL CONDITION IX, TERMINATION, or extended to a later date in accordance with GENERAL CONDITION V, CHANGES IN SCOPE OF SERVICES.

**ARTICLE IV - PAYMENTS**

During the period of performance, the Society agrees to pay the sum of \$XX to the Institution in [(A)] equal installments of \$[B]. The first installment shall be paid on or within thirty days after the execution of the Agreement. Subsequent payments shall be made within thirty days of the Society's acceptance of Progress and Financial Reports described in GENERAL CONDITION IV, DELIVERABLES, during the term of the Agreement. In addition, a payment of \$XX shall be made contingent upon submission of the Final Report described in GENERAL CONDITION IV, and the final payment of \$XX shall be made contingent upon completion of all Services, the acceptance of the Final Report and the receipt of the Research or Technical Paper described in GENERAL CONDITION IV.

Payment of each installment, except the first and final two, shall be contingent upon receipt and acceptance, in the Society's sole discretion, of the Progress Reports described in GENERAL CONDITION IV.

ARTICLE V - COMPLETE AGREEMENT

This Agreement plus the attached GENERAL CONDITIONS I through XVII constitute the complete agreement of the parties hereto with respect to the Services listed herein and supersedes all prior statements oral or written. This Agreement may be modified only by mutual written agreement of the parties.

IN WITNESS WHEREOF, the said parties have caused their corporate names and seals to be affixed hereto by the duly authorized officers.

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.

Name:

Name:

Date:

Date:

Title: President

Jeff H. Littleton

Title: Executive Vice President

(Seal)

INSTITUTION

Name:

Date:

Title:

(Seal)

## GENERAL CONDITIONS

### GENERAL CONDITION I - WORK PERFORMANCE

The Institution shall perform the Services by the utilization of its best efforts, in a workmanlike manner by qualified personnel, in accordance with standard scientific and technical procedures, and practices.

### GENERAL CONDITION II - LIMITATION OF OBLIGATION

Neither party shall be obligated to incur costs (excluding any previously agreed to shared amount) beyond those shown in ARTICLE II, unless agreed to in writing by the parties.

### GENERAL CONDITION III - DISBURSEMENTS

The Institution agrees that disposition of the funds paid them for the Services shall be generally in accordance with that outlined in the Application for Grant of Funds previously submitted by the Institution and attached hereto. No expenditures in excess of \$1,000.00 beyond that so defined in the proposal shall be made for equipment or supplies except on written approval by the Society's Manager of Research and Technical Services.

### GENERAL CONDITION IV - DELIVERABLES

Progress, Financial and Final Reports, Research or Technical Paper(s), and Data shall constitute the only deliverables ("Deliverables") under this Agreement and shall be provided as follows:

a. Progress and Financial Reports

Progress and Financial Reports, in a form approved by the Society, shall be made to the Society through its Manager of Research and Technical Services at quarterly intervals; specifically on or before each January 1, April 1, June 10, and October 1 of the contract period.

Furthermore, the Institution's Principal Investigator, subject to the Society's approval, shall, during the period of performance and after the Final Report has been submitted, report in person to the sponsoring Technical Committee/Task Group (TC/TG) at the annual and winter meetings, and be available to answer such questions regarding the research as may arise.

b. Final Report

A written report, design guide, or manual, (collectively, "Final Report"), in a form approved by the Society, shall be prepared by the Institution and submitted to the Society's Manager of Research and Technical Services by the end of the Agreement term, containing complete details of all research carried out under this Agreement. Unless otherwise specified, six copies of the final report shall be furnished for review by the Society's Project Monitoring Subcommittee (PMS).

Following approval by the PMS and the TC/TG, in their sole discretion, final copies of the Final Report will be furnished by the Institution as follows:

- An executive summary in a form suitable for wide distribution to the industry and to the public.
- Two bound copies

- One unbound copy, printed on one side only, suitable for reproduction.
- Two copies on CD-ROM; one in PDF format and one in Microsoft Word.

c. HVAC&R Research or ASHRAE Transactions Technical Papers

One or more papers shall be submitted first to the ASHRAE Manager of Research and Technical Services (MORTS) and then to the “ASHRAE Manuscript Central” website-based manuscript review system in a form and containing such information as designated by the Society suitable for publication. Papers specified as deliverables should be submitted as either Research Papers for HVAC&R Research or Technical Paper(s) for ASHRAE Transactions. Research papers contain generalized results of long-term archival value, whereas technical papers are appropriate for applied research of shorter-term value, ASHRAE Conference papers are not acceptable as deliverables from ASHRAE research projects.. The paper(s) shall conform to the instructions posted in “Manuscript Central” for an ASHRAE Transactions Technical or HVAC&R Research papers. The paper title shall contain the research project number (XXXX-RP) at the end of the title in parentheses, e.g., (XXXX-RP).

All papers or articles prepared in connection with an ASHRAE research project, which are being submitted for inclusion in any ASHRAE publication, shall be submitted through the Manager of Research and Technical Services first and not to the publication's editor or Program Committee.

d. Data

Data is defined in General Condition VI, “DATA”

e. Project Synopsis

A written synopsis totaling approximately 100 words in length and written for a broad technical audience, which documents 1. Main findings of research project, 2. Why findings are significant, and 3. How the findings benefit ASHRAE membership and/or society in general shall be submitted to the Manager of Research and Technical Services by the end of the Agreement term for publication in ASHRAE Insights

The Society may request the Institution submit a technical article suitable for publication in the Society’s ASHRAE JOURNAL. This is considered a voluntary submission and not a Deliverable. Technical articles shall be prepared using dual units; e.g., rational inch-pound with equivalent SI units shown parenthetically. SI usage shall be in accordance with IEEE/ASTM Standard SI-10.

GENERAL CONDITION V - CHANGES IN THE SCOPE OF SERVICES

The Society or the Institution may, at any time, by written request suggest changes to the scope of Services, including but not limited to (a) revising, adding or deleting from the Services, or (b) revising the period of performance. Such request will be incorporated into this Agreement by mutual consent in writing. If any changes in the Scope of Services result in an increase or decrease in the total cost for the Services, the fixed sum described in ARTICLE II will be adjusted before such change becomes effective.

GENERAL CONDITION VI - DATA

The Institution agrees to maintain true and complete books and records, including but not limited to notebooks, reports, charts, graphs, analyses, computer programs, visual representations etc., (collectively, the “Data”), generated in connection with the Services. Society representatives shall have access to all

such Data for examination and review at reasonable times. The Data shall be held in strict confidence by the Institution and shall not be released to third parties without prior authorization from the Society, except as provided by GENERAL CONDITION VII, PUBLICATION. The original Data shall be kept on file by the Institution for a period of two years after receipt of the final payment and upon request the Institution will make a copy available to the Society upon the Society's request.

#### GENERAL CONDITION VII - PUBLICATION

The intent of the parties is to make the results of the Services available to, and for the benefit of, the public. In view of their financial support of the Services, the Society shall own the exclusive rights to publication of all Data, Research or Technical Papers, Progress, Financial and Final Reports resulting from the project for the shortest of the following periods:

- a. Until the Society gives the Institution written permission to publish the results, or
- b. Until the Research or Technical Paper described in GENERAL CONDITION IV, DELIVERABLES, is published, at which time the paper or derivative paper based on data resulting from the Services, may be published by the Institution with acknowledgement to the Society, or
- c. Until the period of one year has passed from the submission of said Research or Technical Paper to the Society at which time the paper or derivative paper based on data resulting from the Services, may be published by the Institution with acknowledgement to the Society,

Prior to publication by either party, the Institution may catalog and place theses or reports of the Services in the Institution's library for research and reference purposes.

The cooperative character of the investigation shall be recognized in each text, on the title page or on the cover of the Final Reports, Research or Technical Papers or other published accounts of the Services by including the following annotation: "Results of Cooperative Research between the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., and [Name of Institution]."

Prior to the Institution's offering for sale or distribution any book, manual, guide, software, or other such product of commercial value created in connection with the Services, the Institution and/or the Principal Investigator shall enter into a royalty or publication agreement with the Society.

The Institution may not use the ASHRAE name or logo in any manner which may imply the Society's endorsement of any publication or software resulting from the Services without prior written permission from the Society.

#### GENERAL CONDITION VIII - PATENTS

The Institution agrees to promptly disclose any patentable or copyrightable inventions resulting from the Services to the Society and will assist the Society in seeking a patent(s) with respect to such inventions. Alternatively, the Society may permit the Institution to seek a patent provided: (i) the Institution executes all documents necessary to obtain such patent; (ii) the Institution grants to the Society, a worldwide, non-exclusive, irrevocable, sublicensable, royalty-free license use for any purpose, the patented work; and (iii) the Institution shares its net income from such patent(s) with the Society in the portions 40% to the Society and 60% to the Institution.

#### GENERAL CONDITION IX - TERMINATION

The Society shall have the right to terminate this Agreement upon 30 days' notice in writing to the Institution for any reason. If the Society exercises this termination right, the Institution agrees to stop all work to the extent specified in the notice and incur no further expenses beyond those authorized in such notice.

Likewise, the Institution shall have the right to terminate this Agreement upon 30 days' notice in writing to the Society for any reason. If the Institution exercises this termination right, the Institution agrees to stop all work immediately upon the date notice is given, except to the extent authorized by the Institution.

In the event of termination by either party, the Society will determine, in consultation with the Institution, the portion of the fixed sum earned to the date of termination. The Institution agrees, upon the Society's request, to complete the portion of the Services initiated prior to the notice of termination. The Society will pay the Institution for such Services and any agreed upon expenses up to the fixed sum of the Agreement stated in Article II, "TYPE OF AGREEMENT." Expiration, cancellation or termination of the Agreement under any circumstances will in no way be construed as a restriction, limitation or waiver of either party's rights to pursue any additional remedy (ies) at law or equity.

#### GENERAL CONDITION X - KEY PERSONNEL

The Institution agrees to assign the persons listed in the proposal to perform the Services for the time period and at the level of activity stated in the proposal. Should, for any reason, one or more of these persons be unavailable to carry out the assignment, the Institution shall, with prior approval of the Society, replace them with a person(s) of equal abilities and qualifications.

#### GENERAL CONDITION XI - STATUS, ASSIGNMENT

The Institution's status under this Agreement shall be that of an independent contractor and not that of an agent or employee. The Institution shall have no right or power to enter into any contract or commitment on behalf of the Society. The parties acknowledge that the identity and expertise of the Institution were and continue to be material circumstances upon which the Society relied in entering into this Agreement, and therefore this Agreement is not assignable by the Institution without the prior written consent of the Society.

#### GENERAL CONDITION XII - COPYRIGHT INFRINGEMENT

The Institution represents and warrants to the Society that any and all materials to be prepared under this Agreement for the Society do not and will not infringe upon the copyright, patent, or license or otherwise violate the proprietary rights of any person or entity. The Institution hereby agrees to indemnify and hold the Society harmless from and against all liability, loss, damage or injury and reasonable costs and expenses (including reasonable attorneys' fees and costs of any investigation or suit related thereto, and of any judgment under any such suit satisfying any claim described herein) arising from: (i) any misrepresentation by, or breach of the representations and warranties given by, the Institution herein, or from a breach of any covenant or warranty of the Institution contained in this Agreement, or from any misrepresentation in or omissions from any other instruments, or any breach of any covenant or warranty in any instrument, furnished or to be furnished by the Institution hereunder; or (ii) from any suit, action, proceeding, claim or investigation pending or threatened against or affecting the Institution or the Society which alleges any such infringement.

In the event there is such a claim, the Institution agrees to: (i) procure for the Society the continuing right to use of the material without restriction; (ii) replace the material which is the subject of an infringement claim with material of equal suitability, in the opinion of the Society, for the use to which the infringing material was used; or (iii) modify the material which is the subject of the infringement claim so that it is

no longer subject to such a claim.

#### GENERAL CONDITION XIII - INSURANCE

The Institution hereby represents and warrants to the Society, and agrees hereby to furnish the Society with a certificate proving compliance therewith, that it is presently conducting its business so as to comply in all respects with all applicable statutes, ordinances, rules, regulations and orders of any governmental authority with regard to Workers' Compensation Insurance coverage. Such coverage may take the form of a certificate of workers' compensation or proof of self-insurance.

The Institution covenants and agrees to purchase and maintain, during the term of this Agreement Employer's Liability Insurance ("Insurance") in a minimum amount of One Million Dollars (\$1,000,000) for the injury or death of any one employee. The terms of such Insurance shall provide that the Society receive 30 days' written advance notice prior to the cancellation, termination, alteration or material change of any such Insurance coverage.

The Institution shall, at its own expense, purchase and maintain during the performance of this Agreement, Comprehensive Automobile Liability and Comprehensive General Liability Insurance with coverage and in such minimum amounts as provided below:

1. Comprehensive Automobile Liability insurance shall include coverage for owned, hired and non-owned vehicles and shall not be in an amount less than Three Hundred Thousand Dollars (\$300,000) combined single limit for any one occurrence.
2. Comprehensive General Liability insurance shall include coverage for personal injury, bodily injury and property damage for Premises-Operations, and Products/Completed Operations Hazard. The amount of such insurance shall not be in an amount less than One Million Dollars (\$1,000,000) combined single limit for any one occurrence.

All insurance policies referred to herein shall include, by endorsement to the policy(ies), the Society as an "additional insured." The Institution shall incur the cost of any and all premiums and endorsements related to all types of insurance described herein.

Evidence of the coverage for each type of insurance described herein shall state that coverage provided is primary and is not excess or contributing with any insurance or self-insurance maintained by the Institution.

The Society shall have the right to inspect or obtain a copy of the original policy(ies) of insurance. The Institution shall, if requested, furnish the required certificates and endorsements to the Society prior to commencing performance of the Services described herein. All insurance certificates, endorsements, cancellations, terminations, alterations and material changes of such insurance shall be issued and submitted to the following:

Manager of Research and Technical Services  
ASHRAE, Inc.  
1791 Tullie Circle, NE  
Atlanta, GA 30329

#### GENERAL CONDITION XIV - INDEMNIFICATION

In connection with any and all third party actions, losses, claims, demands and damages arising in connection with the performance of this Agreement.

- A. The Society agrees to indemnify and hold harmless the Institution, from and against any and all losses, claims, demands, and damages that may arise by reason of any acts or omissions on the part of the Society, its agents or employees, in performance of this Agreement, and shall assume full responsibility for the defense thereof, and upon its failure to do so on proper notice, the Institution reserves the right to defend such action and to charge all costs to the Society.
- B. The Institution agrees to indemnify and hold harmless the Society, from and against any and all losses, claims, demands, and damages that may arise by reason of acts or omissions on the part of the Institution, its agents, employees, contractors and subcontractors, in performance of this Agreement, and shall assume full responsibility for the defense thereof, and upon its failure to do so on proper notice, the Society reserves the right to defend such action and to charge all costs to the Institution.

#### GENERAL CONDITION XV - REPRESENTATIONS

Standard of Care. The Institution represents that it is knowledgeable and experienced in research services and possesses the necessary expertise, facilities, and legal right to provide the Services contemplated hereunder. The Institution represents to the Society that the Services shall be performed in a workmanlike manner consistent with the standards of care, diligence, and skill ordinarily exercised by similar professional research institutions.

Laws and Regulations. The Institution represents and certifies that in the performance of the Services it is familiar with, understands and will comply with all applicable statutes, rules, regulations, orders, judgments, directives or other governmental requirements of the United States and of any state or political subdivision or of any foreign nation, jurisdiction, or subdivision where the Services will be conducted, including, without limit, licensing and certification requirements, laws and regulations designed to protect human and animal test subjects, environmental laws, health and safety laws, worker health and safety laws pertaining to labor wages, hours and other conditions of employment. The Institution shall obtain and/or will obtain all permits, licenses, or other forms of documentation required to provide the Services for the Society in compliance with said laws. The Institution shall furnish the Society with certification of compliance with applicable permits and licenses prior to performing the Services. Where appropriate, the Institute shall certify that it complies with all the Department of Health and Human Services (National Institute of Health [NIH]) guidelines regarding use of human and animal subjects in research and that an approved animal or human subjects Board has assured compliance for the Services.

#### GENERAL CONDITION XVI - WARRANTY

The Institution warrants that all Services performed under this Agreement shall conform to the specifications described in the proposal referenced in Article I, Statement of Work, and the Society shall provide the Institution notice of any non-conformance as soon as practicable after discovery of such non-conformance. Institution shall promptly correct, at no additional charge to Society, any such non-conformance caused in material part by the Institution's acts or omissions.

#### GENERAL CONDITION XVII - MISCELLANEOUS

- a. Notices. All notices or other communications required to be given hereunder must be in writing and delivered either personally, by facsimile with electronic confirmation, by overnight courier or by U.S. mail, certified, return receipt requested, postage prepaid, and addressed as provided in this Agreement or as otherwise requested in writing by the receiving party. Notices delivered personally will be

effective upon delivery and notices delivered by facsimile, overnight courier or U.S. mail will be effective upon their receipt by the party to whom they are addressed.

If to Society:

ASHRAE, Inc.  
1791 Tullie Circle, NE  
Atlanta, GA 30329  
Attn: Michael Vaughn

If to Institution:

XXXXXX  
XXXXXX  
XXXXXX

- b. Governing Law. This Agreement will be governed by and construed and enforced in accordance with the laws of the State of Georgia, without regard to any conflicts of laws principles applied in that state.
- c. Severability. In the event any provision of this Agreement or any part thereof is declared invalid or unenforceable by a final judgment or decree of a court of competent jurisdiction from whose decision no appeal is taken, or a decree of a competent governmental agency, all other sections, provisions and parts of this Agreement, and the application of such provision in any other circumstances, shall remain in full force and effect.

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS  
INC.

Name:

Date:

Jeff H. Littleton

Title: Executive Vice President

INSTITUTION

Name:

Date:

Title: