

**REFERENCE MANUAL
FOR
REFRIGERATION TECHNOLOGY COMMITTEE
FOR
COMFORT – PROCESS – COLD CHAIN (REF-CPCC)**

REVISED: June 22, 2025

FOREWORD

The REF-CPCC Reference Manual, contains guidelines, procedures, sample documents and other tools that the committee uses in its day-to-day operation. The Reference Manual ensures consistency in the operation of the REF-CPCC and serves as an educational tool for new members. The Reference Manual is an internal document of the REF-CPCC and requires the approval of this committee only

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SECTION A: ABBREVIATIONS AND ACRONYMS

CRC	Chapter Regional Conference
CTTC	Chapter Technology Transfer Committee
BOD	Board of Directors
REF-CPCC	Refrigeration Technology Committee for Comfort – Process – Cold chain
MOP	Manual of Procedures
ROB	Rules of the Board
RVC	Regional Vice-Chair
MORTS	Manager of Research and Technical Services
TC	Technical Committee
TG	Task Group
TRG	Technical Resource Group

SECTION B: OPERATIONS (Chair, Vice Chair, and Staff Liaison)

This section provides details on the responsibilities and duties of the Committee members as presented in the Manual of Procedures, under Section B Part 2 of MOP.

1. Chair Duties & Activities

- Preside over all meetings of the REF-CPCC Committee.
- Coordinate and direct the activities of the Vice Chair and those of the voting members through MBOs and other assignments.
- Organize REF-CPCC subcommittees as necessary to satisfy the needs of the committee as indicated in the REF-CPCC Reference Manual.
- Prepare the agenda for all REF-CPCC Committee meetings with staff support.
- See that minutes are recorded for all REF-CPCC Committee meetings.
- See that the following reports are to be submitted to Technology Council with a copy to the Refrigeration BOD Ex-O and to the MORTS:
 - Management By Objectives (MBOs)
 - The Annual Meeting MBO report shall be a final report of the committee's MBOs for that Society Year to show the council what the committee accomplished during the Society year that is ending.
 - The Annual Meeting shall also include review of the MBOs prepared by the incoming chair to show what is planned for the upcoming Society Year. These MBOs will be submitted following the Annual Meeting, no later than the fall Technology Council meetings.
- Annually submit to the President-Elect of ASHRAE recommendations for a Chair, a Vice Chair, and replacement members for any members who are leaving the committee for any reason.
- Recommend one member of the committee to serve as a consultant of the CTTC committee.
- Appoint liaisons to TCs, TGs, SSPCs and any other refrigeration-related committees.
- Appoint at the final meeting of the Fiscal Year a mentor for each new incoming member of the

committee.

- Maintain a list of invited guests for the Winter and Annual meetings to help maintain current communications and engagement with relevant committees, organizations and individuals.

2. Vice Chair Duties and Activities

- The Vice Chair is responsible for budget preparation and review of expenditures. In consultation with the Technology Council, the REF-CPCC Committee, the Director of Technology, and the MORTS, the Vice Chair shall prepare recommended budgets for the operation of the REF-CPCC Committee for the coming fiscal year for consideration by the REF-CPCC Committee and Technology Council. Details can be found in the Technology Council MOP and/or Reference Manual.
- In the absence of the Chair, assume the chair position at scheduled or called meetings of the REF-CPCC Committee.
- In the event the Chair is unable to perform the duties of that office, assume all duties of the Chair until a successor is selected.
- The Vice Chair shall serve as the chair of the REF-CPCC Communications Committee.
- The Vice Chair shall serve as a member of the Operations Subcommittee of Technology Council.
- Periodically, the Vice Chair shall review with the MORTS expenditures and budget allocations and shall take any action he/she deems necessary, in cooperation with the Executive Vice President and the Director of Technology, to stay within the established budget.
- Encourage refrigeration technology transfer within the Society by working with the Chapter Technology Transfer Committee (CTTC), Research Administration Committee Research Liaisons, and with the Technical Activities Committee Section Heads, particularly Section 10, to stimulate: (a) programs at Society Meetings, (b) research projects and (c) technical committee membership.
- Be responsible for regular review of the REF-CPCC Committee's Guidance Documents (Rules of the Board, Manual of Procedures, and Reference Manual) and make recommendations for revisions.
- Prior to the Society annual meeting, the committee vice chair or the individual who will be the next year's chair will prepare MBOs for the REF-CPCC committee for the next year and present these objectives to the REF-CPCC committee for review at the committee meeting held during the Society annual meeting. These MBOs will be submitted following the Annual Meeting, no later than the fall Technology Council meetings, with a copy of the MBOs sent to the REF-CPCC BOD Ex-O and MORTS. The committee MBOs shall be submitted using the ASHRAE MBO web form.
- Perform other duties, which may be assigned by the Chair.

3. Duties of Voting Members

- Attend all meetings of the committee.

- Perform MBO tasks and other duties as assigned by the Chair.
- Encourage REF-CPCC Committee formation and activity in each chapter through liaison with CTTC. One member shall also serve as a liaison to the Chapter Technology Transfer Committee.
- Recommend, via the President-Elect Advisory Committee, criteria for Chapter Refrigeration activities in the Presidential Award of Excellence program.
- Report regional activities at the Annual and Winter meetings of the REF-CPCC Committee.
- Assist and advise the TCs, TGs and SSPCs with refrigeration-oriented goals including (a) programs at Society Meetings, (b) research projects and (c) technical committee membership.
- Voting members may be required to serve as Committee Liaisons. (See Section D)
- Annually, determine the winners of the REF-CPCC Awards
 - Milton W. Garland Commemorative Award for Refrigeration Project Excellence
- Sponsor or co-sponsor programs at Society meetings on refrigeration to educate ASHRAE members as specified in REF-CPCC MOP A1.1.

4. Staff Liaison Duties and Activities

- Attend all meetings of the committee.
- Perform assignments made by the Chair.
- Prepare draft of minutes, submitting to Chair and Vice Chair for comments.
- Update Rules of the Board and Manual of Procedures at the direction of the Committee.
- When appropriate, distribute to Committee members for review and possible update.
- Distribute materials to the members for regular meetings of the Committee.
- Assist with budget preparation.
- Provide support for all awards presented by the Committee.
 - Procures all award materials given by REF-CPCC Committee.
 - Mails award materials to award recipients not present at Society meeting.
 - Milton W. Garland Commemorative Award for Refrigeration Project Excellence: distribute submissions to Review Subcommittee, collect and summarizes review scores
- Post materials as directed by the Chair to the Committee's webpage.
- Send to new committee members: Committee Job Description, Rules of the Board, Manual of Procedures, this Reference Manual, and other background material.
- Provide society liaison reports to REF-CPCC.
- Distribute the following materials for the meetings:
 - To all members, minutes of the prior meeting, agenda for current meeting, MBO list(s), travel voucher and other pertinent information.
 - To new committee members, Rules of the Board, Manual of Procedures, this

Reference Manual, and other background material.

SECTION C: MANAGEMENT BY OBJECTIVES

- C.1 Each objective should be measurable 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. See Figure C.1 for suggested format, or as defined in the ASHRAE online MBO web form.
- C.2 MBO reports shall be reviewed at the Society Winter and Annual Meetings and submitted as defined in Chair and Vice Chair duties noted above.



FIGURE C.1
SUGGESTED MBO FORMAT

OBJECTIVES

_____ Committee

Chairman: _____

Society Year: 20____ - 20____

Date: _____

Objective	Planned Completion Date	Fiscal Impact	Responsibility	Program Approved	Cost Budgeted	Status

- List objectives, not action items or ongoing committee activities such as updating the committee's MOP.
- State objectives in clear, concise, measurable language. If necessary, cite sub-tasks and interim steps as a means of measuring objective completion.
- Cite both the completion dates for the overall objective as well as individual sub-tasks.
- State fiscal impact in dollars, man-hours, or man-trips. State whether the program has been approved by the council and whether its cost has been included in the budget.
- State the primary responsible individual, subcommittee, or body.
- Report a brief but complete statement of status. Cite completion date if objective is fulfilled.

SECTION D: COMMITTEE LIAISONS

Part 1 Selection

- D1.1 The REF-CPCC Committee shall provide liaisons to represent the REF-CPCC Committee at CTTC, TCs, TGs, SSPCs, committees and other refrigeration related ASHRAE activities such as programs and workshops.

Part 2 Duties

- D2.1 The Liaisons will provide a written report to the REF-CPCC Committee on all pertinent refrigeration-related issues and information as related to the other committees. These reports shall be presented at the Annual and Winter meetings. A summary of the activities of each liaison shall be included with the Refrigeration Committee minutes.



- D2.2 The members appointed to CTTC will assist with chapter and regional activities in the field of refrigeration.
- Provide recommendations to the REF-CPCC Committee for PAOE point criteria in refrigeration for the President – Elect Advisory Committee.
 - Assist all CTTC RVCs with CRC workshop materials and Presentations pertaining to refrigeration.

- D2.3 Liaise with other Society Committees and Identify refrigeration related speakers/presenters for their program when requested.

SECTION E – SUBCOMMITTEES

- E1.1 Standing and temporary (Ad hoc) Subcommittees of the REF-CPCC Committee are organized by the Chair as necessary to satisfy the needs of the committee.
- Standing subcommittees are as follows:
 - Communications
 - Planning
 - Subcommittee members shall be appointed by the Chair and Vice Chair at the beginning of the Society year based on the expertise and stated preference of the committee members.
 - Subcommittee members who are voting members of REF-CPCC shall be voting members of the subcommittee.
 - Minutes or notes of each subcommittee meeting shall be posted on the REF-CPCC Committee Basecamp site.
- E1.2 Communications Subcommittee Operation and Scope
- The subcommittee chair shall be the Vice Chair of the REF-CPCC Committee.
 - Activities of the communication subcommittee include:
 - Provide response to routine information requests to REF-CPCC.
 - Recommend and organize seminars and presentations on refrigeration.
 - Participate in the development of educational products.
 - Help develop position documents and public policy.
 - Nominate Distinguished Lecturers.

- Coordinate features for the ASHRAE Journal.
- Promote and coordinate ASHRAE Refrigeration Awards with our Society and the HVACR industry (Ref Section G).
- Other activities assigned by Chair to meet REF-CPCC objectives


E1.3 Planning Subcommittee Operation and Scope

- a. The subcommittee chair shall be appointed by the Committee Chair.
- b. Activities of the planning subcommittee include:
 - Identify major trends and “gaps and needs” in refrigeration globally, present to committee leadership and members, and recommend actions.
 - Develop and draft annual recommendations for the ASHRAE strategic planning process for review with the Committee (ROB 2.420.004 Strategic Plan). Recommendations will be in advance of the Annual meeting or as requested.
 - Develop and/or support refrigeration-related social events and outreach activities to build awareness and region and chapter levels. A member of the Planning Subcommittee will be the CTCC liaison from REF-CPCC (Ref duties in D2.2).
 - Other activities assigned by Chair to meet REF-CPCC objectives

E1.4 Ad hoc subcommittees may be appointed by the Chair of the committee with the approval of REF-CPCC Committee.

E1.5 The Chair shall form additional subcommittees as needed to conduct the business of the REF-CPCC Committee in a practical and efficient manner. As conditions change, the Chair may dissolve these subcommittees. Both their appointment and dissolution require approval of REF-CPCC Committee.

E1.6 The Chair shall appoint the members and chair of each subcommittee, with the consent of REF-CPCC Committee. The chair of each subcommittee must be a member of REF-CPCC Committee. Chair may appoint additional subcommittee members who are not members of the REF-CPCC Committee when there is a need for members who have expertise and experience in certain areas that are of immediate importance and not available from the REF-CPCC Committee members.

E1.7  Subcommittee members are appointed for the Society year. If a member’s term of service on the committee continues into the next Society year, they may be re-appointed to the same or different subcommittee by the incoming Chair.

E1.8 Subcommittees shall meet in person or via web meetings, typically four (4) times per year in advance of REF-CPCC meetings, or as needed to complete committee work. Subcommittee chairs shall report on subcommittee activities at REF-CPCC Committee meetings and provide a written report to be included in the report for Tech Council at the Winter and Annual meetings.

SECTION F: MENTORING PROGRAM

During the Annual Meeting, the Committee Chair shall appoint an incumbent to be the mentor for each new member. The mentor will be responsible for the following tasks: As soon as practical after the Annual meeting, the mentor should contact the new member by telephone, letter, fax or email to introduce himself/herself and explain the new relationship and its purpose.

The mentor should make every effort to update the new member on:

1. Committee or chapter functions focus and objectives.
2. Review the Rules of the Board (ROB) and Manual of Procedures (MOP) with the new member.
3. Discuss the typical meeting format and member duties and responsibilities.
4. Coordinate introduction to Basecamp features and utilization.

The mentor should plan to meet the new member before the respective meeting is scheduled to start and introduce him/her to the chair and early arriving members. The mentor should also introduce the new member with pertinent data such as:

1. Member's field of expertise and employer
2. Chapter and city of the new member
3. Former chapter, region and Society positions previously held by the new member

The new member will be sent a copy of the group Rules of the Board (ROB), Manual of Procedures (MOP) and a copy of the most recent meeting minutes to acquaint him/her with the function and focus of the group. The new member should be encouraged to develop a rapport with other members to effectively work with fellow members to maximize productivity.

The chair of the committee shall have the following responsibilities:

1. Assign a mentor to each incoming new member of the group prior to the first meeting.
2. Assure that the time allotted at the beginning of the first meeting is sufficient for proper introduction of the new member by the assigned mentor.
3. Assess at a later meeting the effectiveness of the mentor/new member relationship.
4. Provide any assistance to enhance the mentor/new member relationship.

Completion date: The mentoring responsibility concludes the end of the new member's first year on the Committee.

SECTION G: MILTON W. GARLAND COMMEMORATIVE AWARD FOR REFRIGERATION PROJECT EXCELLENCE

Award Description and Processes

Description:

The Milton W. Garland Commemorative Award for Refrigeration Project Excellence is an ASHRAE award to honor outstanding projects that demonstrate innovation and advancement in the field of refrigeration. The award will encompass commercial and industrial refrigeration applications, including but not limited to food processing and preservation, the cold chain, industrial processes, and industrial heat pumping systems. The award may consider innovation and excellence in technology, application, advanced design, project practices and operation.

Recognition:

The winning project will be recognized in the ASHRAE Journal and shall receive the following:

- The representative of the design team shall receive a plaque at the Society Winter Meeting.
- The project owner shall receive a plaque. The plaque will be presented at a chapter program meeting, if requested.

For all submissions by chapters, the chapters will receive the following recognition:

- For a winning project nominee, a felt patch for the chapter award banner. The patch will be presented at the next CRC meeting following the Society award presentation.
- For all submitted projects, a ribbon will be presented at the following year's CRC meeting.

Submission Criteria:

The awards are open to all to projects which meet the award description and the following criteria:

- Projects nominations may be prepared by the designer, architect, engineer, owner or supplier.
- A member of the project team or the owner must be an ASHRAE member. The nominator must inform and have permission from the owner of the project allowing the entry to be published. The owner's name may be withheld for privacy. A release for this purpose must be obtained from the owner (see Submission Form).
- All projects must be submitted no earlier than twelve (12) months preceding, and no later than forty-eight (48) months following, the initial operation date of the system.

Submission Format:

The project submission shall be formatted as follows:

- The front cover shall be the Award Submission Form.
- The second page shall contain no more than a two-paragraph overview of the project with a brief explanation of the factors supporting the nomination.
- The following pages shall contain a description of the project. The last pages of the submission

shall consist of drawings, plans, schematics, or pictures of the project which will give the judges a clear understanding of the project.

- The submission must be a single PDF file not exceeding 20 pages. Sheets must be letter size except drawings which may be larger.

Submission Process:

- Submissions must be sent to the REF-CPCC Committee Staff Liaison (TBD@ashrae.net) by May 1st to be considered for that year's competition.
- The Staff Liaison will submit a copy of the submission to the Chapter Technology Transfer Committee (CTTC) Regional Vice-Chair (RVC) for informational purposes.

REF-CPCC Committee Responsibilities

Part 1 Award Communications

- G1.1 The Communications Committee shall develop a brief article calling for award nominations to be published in the Jan/Feb ASHRAE Insights. The Committee will also provide an email blast for distribution to chapters (from CTTC as well as from REF-CPCC) coordinated by ASHRAE staff.
- G1.2 The Communications Committee shall create and maintain the ASHRAE website text describing the award and the downloadable application form.

Part 2 Award Evaluation

Upon receipt of award submissions, the following procedures will be followed:

- G2.1 The Chair will review submissions for conformity with submission requirements. If requirements are not met, the Chair will advise the Staff Liaison whether the submission may be corrected or should be rejected.
- G2.2 The Chair of the REF-CPCC Committee shall select at least three members on the Committee to serve as the Award Subcommittee.
- G2.3 The Award Subcommittee shall judge the award submissions using the following points criteria:
- Complexity of Project Requirements..... (20 Points)
 - Innovation and Originality (25 Points)
 - Energy Efficiency and Sustainability..... (25 Points)
 - Construction Practice Advancements (10 Points)
 - Advanced Operation and Maintenance (10 Points)
 - Completeness of Award Submission (10 Points)
- G2.4 Scores and award recommendations shall be delivered to the REF-CPCC Committee Staff Liaison no later than 14 days prior to the Refrigeration REF-CPCC Committee's meeting at the Society

annual conference. The Award Subcommittee may conclude that the submission(s) do not meet the award scope or the quality to be considered for the award but must provide their conclusions and reasons in writing.

- G2.5 The Chair of the Award Subcommittee shall present its recommendations for approval by the REF-CPCC Committee at the Annual Meeting.

Part 3 Staff Responsibilities

The REF-CPCC Committee Staff Liaison shall provide support through the following activities:

- G3.1 Receive submissions and distribute to the Awards Subcommittee
- G3.2 Collect and summarize ratings for review and voting by the full committee at the Society annual meeting.
- G3.2 Procure all award and recognition materials as shown above for the awards and mail such materials to all recipients who are not present at the Society meeting.
- G3.2 Provide description of the winning project to the ASHRAE Journal editor for publications.

Applying for (Check One)

AWARD SUBMISSION FORM

Milton W. Garland Commemorative Award for Refrigeration Project Excellence

1. Name of building or project: _____

Initial Date of Operation: _____

ASHRAE Member Submitting: _____

2. **Award Winner** (note person listed here will be official winner of award, receive plaque at Plenary session, get travel reimbursement, etc.)

a. Name: Role in project: ASHRAE Membership Number (if applicable): _____

b. Address (including country): _____

c. Office Telephone: _____

d. E-mail address: _____

e. Company: _____

3. **Co-Winner** (if appropriate only. Note there will be only the one official winner, but more can be recognized if warranted)

a. Name: Role in project: _____

ASHRAE Membership Number (if applicable): _____

b. Address (including country): _____

c. Office Telephone: _____

d. E-mail address: _____

e. Company: (please append additional names if appropriate)

4. **ASHRAE Linkage** (the prime designer is an ASHRAE member, the installer is a member, the firm is Golden Circle, or the owner, supplier, etc., is a member, etc. Note the person listed here does not receive award unless listed above).

a. Name: ASHRAE Member Linkage: _____

ASHRAE Membership Number: _____

b. Address (including country): _____

c. Office Telephone: _____

d. E-mail address: _____

e. Company: _____

5. Owner's release:

I certify that I am the owner or the authorized representative of this project, and hereby grant permission to ASHRAE to use all the enclosed data and information in the judging and subsequent publicity of this project.

Typed Name:

a. Name: _____

b. Title: _____

c. Signature: _____

(Signatures must be on form submitted to ASHRAE)

Date: _____

d. Company: _____

e. Address (including country): _____

f. Office Telephone: _____

g. E-mail address: _____

SECTION H – REVISIONS TO RULES AND PROCEDURES

(This Section is for Informational Purposes Only)

Part 1: Revisions to Rules of the Board

H1.1 Proposed changes (additions and deletions) to Rules of the Board (ROBs) shall be submitted by committees, councils and Board members. Changes proposed by a committee shall be submitted through the body to which it reports; councils and Board members may submit proposed changes directly to the Board of Directors.

H1.2 To propose a change to an existing ROB

Present the current ROB with changes marked by double underlining to designate words proposed to be added and strikethrough to designate words proposed to be deleted. A proposed change, as a minimum, shall include the complete ROB number (e.g., 2.106.001.2), the proposed change(s) marked as indicated above, and the reason(s) for the change(s).

H1.3 To propose a new ROB, present the wording for the new rule and include a statement indicating a recommended placement of the new rule within the ROB organization.

Examples:

It is recommended that this rule be placed in ROB Volume 1, Policies.

It is recommended that this rule be placed in ROB Volume 2, Publishing and Education Council.

H1.4 To propose rescinding an existing ROB, include in the recommendation the ROB volume in which the rule is located, the rule number or other identification code, and the wording of the rule to be rescinded.

H1.5 Proposed changes to Society-wide policies and procedures (e.g., Travel Reimbursement Policy, Election and Appointment Procedures) shall follow the same procedure as for changes to ROBs.

Part 2 Revisions to Manuals of Procedures (MOP)

H2.1 Revisions to this MOP must be approved by this committee and by Technology Council or designated council subcommittee.