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EXCELLENCE ............................................................................................................ 100
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SERVICE TO ASHRAE RESEARCH AWARD

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DONALD BAHNFLETH ENVIRONMENTAL HEALTH AWARD

YOUNG ENGINEERS IN ASHRAE (YEA) AWARD OF INDIVIDUAL EXCELLENCE

YOUTH OUTREACH AWARD

DEVELOPING LEADER AWARD

LOWER-GWP REFRIGERATION AND AIR-CONDITIONING INNOVATION AWARD

WOLVERINE-ASHRAE DIAMOND KEY AWARD

KLIXON AWARD

JOSEPH F. CUBA AWARD FOR ENERGY RESEARCH
The Honors and Award Reference Manual is a reference for guidelines, forms, procedures, sample documents and other tools that the Committee uses in its day to day operations. It ensures consistency in the operation of the Committee and serves as an educational tool for new members. The H&A Reference Manual is an internal document of the Committee and requires the approval of the Committee.
Prior to Board of Director’s approval, the Honors and Awards Committee shall review all recommendations for new awards to ensure that the wording of criteria is sufficiently specific as to clearly establish the purpose of the award, and to ensure that the wording does not conflict with existing awards. Further, the official version of the criteria, as established in the Rules of the Board, shall be the version used in all ASHAE publications.

The BOD shall confirm individuals recommended for the following honors and awards based on the following requirement:

<table>
<thead>
<tr>
<th>Award</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASHRAE Hall of Fame</td>
<td>2 or more negative votes defeats</td>
</tr>
<tr>
<td>ASHRAE Pioneers of the Industry</td>
<td>2 or more negative votes defeats</td>
</tr>
<tr>
<td>Honorary Member</td>
<td>2 or more negative votes defeats</td>
</tr>
<tr>
<td>F. Paul Anderson Award</td>
<td>2 or more negative votes defeats</td>
</tr>
<tr>
<td>Fellow</td>
<td>4 or more negative votes defeats</td>
</tr>
<tr>
<td>Louise and Bill Holladay Distinguished Fellow Award</td>
<td>4 or more negative votes defeats</td>
</tr>
<tr>
<td>Andrew T. Boggs Service Award</td>
<td>4 or more negative votes defeats</td>
</tr>
<tr>
<td>ASHRAE Award for Distinguished Public Service</td>
<td>4 or more negative votes defeats</td>
</tr>
</tbody>
</table>

Members Council shall confirm individuals recommended for the following honors and awards based on the following requirement:

<table>
<thead>
<tr>
<th>Award</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinguished Service Award</td>
<td>4 or more negative votes defeats</td>
</tr>
<tr>
<td>Distinguished 50-Year Member Award</td>
<td>4 or more negative votes defeats</td>
</tr>
<tr>
<td>Exception Service Award</td>
<td>4 or more negative votes defeats</td>
</tr>
<tr>
<td>Homer Addams Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Lincoln Bouillon Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>John F. James International Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>William J. Collins Jr. Research Promotion Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Ralph G. Nevins Physiology &amp; Human Environment Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Milton W. Garland Commemorative Refrigeration Award for Project Excellence</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Government Advocacy Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Standards Achievement Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Crosby Field Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Technical Paper Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Journal Paper Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Willis H. Carrier Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Science and Technology for the Built Environment Best Paper Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Chapter Program Star Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Refrigeration Comfort Cooling Project Excellence Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Service to ASHRAE Research Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>George B. Hightower Technical Achievement Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Donald Bahnfleth Environmental Health Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Lou Flagg Historical Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Donald A. Siller Refrigeration Award</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Young Engineer in ASHRAE (YEA) Award of Individual Excellence</td>
<td>Majority vote</td>
</tr>
<tr>
<td>Youth Outreach Award</td>
<td>Majority vote</td>
</tr>
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</table>
## APPENDIX A-2: AWARDS SCHEDULE

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<thead>
<tr>
<th>Winter Meeting Awards</th>
<th>Maximum Number Per Year</th>
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<tr>
<td><strong>PERSONAL HONORS AND AWARDS</strong></td>
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<tr>
<td>Honorary Member</td>
<td>3</td>
</tr>
<tr>
<td>ASHRAE Hall of Fame</td>
<td>2</td>
</tr>
<tr>
<td>ASHRAE Pioneers of the Industry</td>
<td>2</td>
</tr>
<tr>
<td>Fellow</td>
<td>No Limit</td>
</tr>
<tr>
<td>F. Paul Anderson Award</td>
<td>1</td>
</tr>
<tr>
<td>ASHRAE Award for Distinguished Public Service</td>
<td>1</td>
</tr>
<tr>
<td><strong>PASS THROUGH AWARDS</strong></td>
<td></td>
</tr>
<tr>
<td>E. K. Campbell Award of Merit</td>
<td>1</td>
</tr>
<tr>
<td>John F. James International Award</td>
<td>1</td>
</tr>
<tr>
<td>Milton W. Garland Refrigeration Award</td>
<td>1</td>
</tr>
<tr>
<td>Comfort Cooling Award for Project Excellence</td>
<td>1</td>
</tr>
<tr>
<td>Student Project Competition</td>
<td>3 (First Prizes) 3 (Second Prizes)</td>
</tr>
<tr>
<td>Developing Leader Award</td>
<td>No Limit</td>
</tr>
<tr>
<td>Technology Award/Award of Engineering Excellence</td>
<td>6 Categories (up to 3 awards may be given in each category)</td>
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<tr>
<td>Lower-GWP Refrigeration and Air-Conditioning Innovation Award</td>
<td>No Limit (First Place and Honorable Mention)</td>
</tr>
<tr>
<td>YEA Developing Leader Award</td>
<td>No Limit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Annual Meeting Awards</strong></th>
<th>Maximum Number Per Year</th>
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</thead>
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<tr>
<td><strong>PERSONAL HONORS AND AWARDS</strong></td>
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<tr>
<td>Louise and Bill Holladay Distinguished Fellow Award</td>
<td>1</td>
</tr>
<tr>
<td>Andrew T. Boggs Service Award</td>
<td>1</td>
</tr>
<tr>
<td>Exceptional Service Award</td>
<td>20</td>
</tr>
<tr>
<td>Distinguished Service Award</td>
<td>No Limit</td>
</tr>
<tr>
<td>Distinguished 50-Year Member Award</td>
<td>No Limit</td>
</tr>
<tr>
<td><strong>PAPER AWARDS</strong></td>
<td></td>
</tr>
<tr>
<td>Crosby Field Award</td>
<td>1</td>
</tr>
<tr>
<td>Technical Paper Awards</td>
<td>4</td>
</tr>
<tr>
<td>Willis H. Carrier Award</td>
<td>1</td>
</tr>
<tr>
<td>Journal Paper Award</td>
<td>1</td>
</tr>
<tr>
<td>Poster Presentation Award</td>
<td>1</td>
</tr>
<tr>
<td>Science and Technology for the Built Environment Best Paper Award</td>
<td>1</td>
</tr>
<tr>
<td><strong>PASS THROUGH AWARDS</strong></td>
<td></td>
</tr>
<tr>
<td>Lincoln Bouillon Award</td>
<td>1</td>
</tr>
<tr>
<td>William J. Collins, Jr. RP Award</td>
<td>1</td>
</tr>
<tr>
<td>Homer Addams Award</td>
<td>1</td>
</tr>
<tr>
<td>Ralph G. Nevins Award</td>
<td>1</td>
</tr>
<tr>
<td>Government Affairs Award</td>
<td>1</td>
</tr>
<tr>
<td>Standards Achievement Award</td>
<td>No Limit</td>
</tr>
<tr>
<td>Dan Mills Technical Award</td>
<td>1</td>
</tr>
<tr>
<td>Student Activities Achievement Award</td>
<td>1</td>
</tr>
<tr>
<td>Lou Flagg Historical Award</td>
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<tr>
<td>Chapter Program Star Award</td>
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<td>Donald Bahnfleth Environmental Health Award</td>
<td>1</td>
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<tr>
<td>Donald A. Siller Refrigeration Award</td>
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</tr>
<tr>
<td>Service to ASHRAE Research Award</td>
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</tr>
<tr>
<td>YEA Award of Individual Excellence</td>
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</tr>
<tr>
<td>Youth Outreach Award</td>
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</tr>
<tr>
<td>George B. Hightower Technical Achievement Award</td>
<td>1</td>
</tr>
<tr>
<td>Donald A. Siller Refrigeration Award</td>
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Honors and Awards Committee
Reference Manual (February 2019)
### APPENDIX A-3: FORM OF ALL HONORS AND AWARDS

<table>
<thead>
<tr>
<th>Award</th>
<th>Plaque</th>
<th>Medallion</th>
<th>Lapel Pin</th>
<th>Honorary</th>
<th>Endowed</th>
<th>Meeting Presented</th>
<th>Other</th>
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<td><strong>PERSONAL HONORS</strong></td>
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</tr>
<tr>
<td>ASHRAE Hall of Fame</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Winter</td>
<td>Plaque; trans. to mtg.; one night’s lodging</td>
</tr>
<tr>
<td>ASHRAE Pioneers of the Industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Winter</td>
</tr>
<tr>
<td>Honorary Member</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Winter</td>
<td></td>
</tr>
<tr>
<td>F. Paul Anderson</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Winter</td>
<td>Transportation</td>
</tr>
<tr>
<td>Andrew T. Boggs</td>
<td>•</td>
<td>•</td>
<td></td>
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<td>Annual</td>
<td>Transportation</td>
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<td>ASHRAE Award for Distinguished Public Service</td>
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<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Winter</td>
<td>Transportation</td>
</tr>
<tr>
<td>Louise &amp; Bill Holladay</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>Transportation</td>
</tr>
<tr>
<td>Fellow</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td>Winter</td>
<td></td>
</tr>
<tr>
<td>E.K. Campbell</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td>Winter</td>
<td>$10,000 (from Life Members Club)</td>
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<td>Exceptional Service</td>
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<td></td>
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<td></td>
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<td>Annual</td>
<td></td>
</tr>
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<td>Distinguished 50-Yr.</td>
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<td>Annual</td>
<td></td>
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<td>Developing Leader Award</td>
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<td>Winter</td>
<td>Plaque/ YEA</td>
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<td></td>
<td></td>
<td>Annual</td>
<td>Transportation</td>
</tr>
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<td>William J. Collins</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>Transportation</td>
</tr>
<tr>
<td>Homer Addams</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>Annual</td>
<td>$5,000 ($1500 H&amp;A/$3500 RAC)</td>
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<tr>
<td>Ralph G. Nevins</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>Annual</td>
<td>$500</td>
</tr>
<tr>
<td>John F. James</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Winter</td>
<td>Transportation</td>
</tr>
<tr>
<td>Milton W. Garland</td>
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<td>•</td>
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<td>Transportation</td>
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<td>Refrigeration Comfort Cooling</td>
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<td>Winter</td>
<td>Transportation /REF</td>
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<tr>
<td>Standards Achievement</td>
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<td></td>
<td></td>
<td>Annual</td>
<td>Transportation</td>
</tr>
<tr>
<td>Dan Mills</td>
<td>•</td>
<td>•</td>
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<td></td>
<td></td>
<td>Annual</td>
<td>Transportation</td>
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<td>Student Activities</td>
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<td>Annual</td>
<td>Transportation</td>
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<tr>
<td>Lou Flagg Historical</td>
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<td></td>
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<td>Annual</td>
<td>Transportation</td>
</tr>
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<td>Chapter Program Star</td>
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<td></td>
<td>Annual</td>
<td>Transportation</td>
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<td>Plaque/Atlanta Chapter</td>
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<td>Plaque/RAC</td>
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<td></td>
<td>Annual</td>
<td>Transportation/EHC</td>
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<td>Donald A. Siller Refrigeration</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>Plaque/CTTC</td>
</tr>
<tr>
<td>YEA Individual Excellence</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>Plaque/YEA</td>
</tr>
<tr>
<td>Youth Outreach Award</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>Plaque/SAC</td>
</tr>
<tr>
<td>Lower-GWP Refrigeration and Air-Conditioning Innovation Award</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Winter</td>
<td></td>
</tr>
<tr>
<td><strong>PAPER AWARDS</strong></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Crosby Field</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>$750 (divided equally)</td>
</tr>
<tr>
<td>Willis H. Carrier</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>$500 (divided equally)</td>
</tr>
<tr>
<td>Technical Paper</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>$500 (divided equally)</td>
</tr>
<tr>
<td>Journal Paper</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>$500 (divided equally)</td>
</tr>
<tr>
<td>Science and Technology for the Built Environment Best Paper Award</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>Plaque/ Transportation/PEC</td>
</tr>
<tr>
<td>Poster Presentation</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>$250 (each presenter)</td>
</tr>
<tr>
<td><strong>SOCIETY AWARDS TO GROUPS OR CHAPTERS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology Award</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Winter</td>
<td></td>
</tr>
<tr>
<td>Student Project Design</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Winter</td>
<td>Honorarium/ Transportation/SAC</td>
</tr>
<tr>
<td>Government Affairs</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual</td>
<td>Transportation</td>
</tr>
</tbody>
</table>
These recommendations are made by the Honors and Awards Committee and approved by Members Council on June 22, 2008, to ensure that the recognition of members for their contributions to industry and the Society remains one of the most important activities of ASHRAE.

- The New Plenary Awards Format should allow for comments by the recipients (or representatives of recipients) of the Louise and Bill Holladay Distinguished Fellow Award, the F. Paul Anderson Award, and the ASHRAE Hall of Fame.

- The Format must recognize the importance of ASHRAE tradition in the awards process.

- Changes to the Format should be submitted to the Honors and Awards Committee for its review.

- The timing of the video presentation should reflect the importance of the award (i.e., Fellow vs. DSA/ESA). To assign equal time to each award detracts from the importance of some awards as it reduces the amount of information shared with the audience.

- If the Plenary Awards Presentation requires more time, consideration may be given to moving the Photo Session back to its traditional time slot before the Plenary where it is more relaxed and less intrusive.
### APPENDIX B: HONORS AND AWARDS CALENDAR

<table>
<thead>
<tr>
<th>Consideration at Winter Meeting</th>
<th>To Members Council/BOD</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Member</td>
<td>Annual</td>
<td>Winter</td>
</tr>
<tr>
<td>ASHRAE Hall of Fame</td>
<td>Annual</td>
<td>Winter</td>
</tr>
<tr>
<td>ASHRAE Pioneers of the Industry</td>
<td>Annual</td>
<td>Winter</td>
</tr>
<tr>
<td>F. Paul Anderson Award</td>
<td>Annual</td>
<td>Winter</td>
</tr>
<tr>
<td>Fellow</td>
<td>Annual</td>
<td>Winter</td>
</tr>
<tr>
<td>ASHRAE Award for Distinguished Public Service</td>
<td>Annual</td>
<td>Winter</td>
</tr>
<tr>
<td>Distinguished Fifty-Year Member</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Student Project Competition</td>
<td>N/A</td>
<td>Winter</td>
</tr>
<tr>
<td>Technology Award/Award of Engineering Excellence</td>
<td>N/A</td>
<td>Winter</td>
</tr>
<tr>
<td>Paper Awards (Recommendation from Chapter Technology Transfer Committee)</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Ralph G. Nevins Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Homer Addams Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Lincoln Bouillon Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>William J. Collins, Jr. Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Government Affairs Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Standards Achievement Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Dan Mills Technical Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Student Activities Achievement Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Lou Flagg Historical Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Chapter Program Star Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>George B. Hightower Technical Achievement Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Service to ASHRAE Research Award</td>
<td>Winter</td>
<td>Winter</td>
</tr>
<tr>
<td>Donald Bahnfleth Environmental Health Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>YEA Award of Individual Excellence</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Youth Outreach Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td><strong>Consideration at Annual Meeting</strong></td>
<td><strong>To Members Council/BOD</strong></td>
<td><strong>Presentation</strong></td>
</tr>
<tr>
<td>Distinguished Service</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Exceptional Service Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Louise and Bill Holladay Distinguished Fellow</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>Andrew T. Boggs Service Award</td>
<td>Winter</td>
<td>Annual</td>
</tr>
<tr>
<td>E. K. Campbell Award of Merit</td>
<td>Annual</td>
<td>Winter</td>
</tr>
<tr>
<td>(Recommendation from Life Members Club)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>John F. James International Award</td>
<td>Annual</td>
<td>Winter</td>
</tr>
<tr>
<td>(Recommendation from Members Council)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milton W. Garland Award</td>
<td>Annual</td>
<td>Winter</td>
</tr>
<tr>
<td>(Recommendation from Refrigeration Committee)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comfort Cooling Award for Project Excellence</td>
<td>Annual</td>
<td>Winter</td>
</tr>
<tr>
<td>(Recommendation from Refrigeration Committee)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing Leader Award</td>
<td>Annual</td>
<td>Winter</td>
</tr>
<tr>
<td>Lower-GWP Refrigeration and Air-Conditioning Innovation Award</td>
<td>Annual</td>
<td>Winter</td>
</tr>
</tbody>
</table>
### APPENDIX C: FORMAT FOR COMMITTEE OBJECTIVES

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 date 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.

**Society Year:** 20___ - 20___

**Date:** ________________

<table>
<thead>
<tr>
<th>Objective</th>
<th>Planned Completion Date</th>
<th>Fiscal Impact</th>
<th>Responsibility</th>
<th>Program Approved</th>
<th>Cost Budgeted</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

98-12-02
APPENDIX D: GUIDELINES FOR AWARDS

ROB 2.411.003.2 Guidelines for Awards

A. The following guidelines for ASHRAE awards are approved: (99-01-27-51/06-01-25-08/07-03-25-01)
1. All requests or suggestions for new awards, revisions to current awards, or award deletions shall be forwarded to the Honors and Awards Committee for review and recommendation before being forwarded to Members Council for review and approval. (10-06-30-15)
2. ASHRAE awards are grouped into the following categories, each of which has its defined form of award:
   a. Personal Honors (plaque and medallion)
   b. Personal Awards for General Society Activities (plaque and lapel pin)
   c. Personal Awards for Specific Society Activities (plaque and lapel pin)
   d. Paper Awards (plaque and honorarium)
   e. Society Awards to Groups or Chapters (plaque)
3. Awards will normally carry the name of an ASHRAE activity (e.g., Distinguished Service Award, Fellow, Journal Paper Award). No business, product or other commercial name shall be used for an award. Only in very exceptional instances may consideration be given to naming the award after an individual.
4. Each proposed award shall be submitted to the Honors and Awards Committee with a detailed description including the name of the award, the suggested category for the award, the reason for establishing the award, and the proposed selection and awarding process.
5. Initial total funding for the award shall be described in the proposal, along with provisions for future funding and inflation considerations. Funding shall be self-perpetuating and supporting for the expected life of the award.
6. Proliferation of awards that would tend to detract from the worth of existing awards must be avoided. The award must first be considered as applying to an important field of ASHRAE related activity; the name of the award would then add prestige.
7. Awards may be proposed by any committee, chapter, or individual to the immediate authority but eventually must pass through the Honors and Award Committee for approval prior to submission to Members Council and then to the Board of Directors. The Honors and Awards Committee will assist anyone wishing to submit a proposal for a new award. The proposal should be reviewed early in the process to allow determination for the appropriate nature of the anticipated award and meeting all necessary criteria for acceptance.

B. This committee shall include in their supporting material for candidates only information pertinent to the requirements for the particular award for which the candidate is being recommended. (70-07-01-11)

C. All voting for honors and awards of the Society shall be strictly secret and held at meetings of Members Council (not by mail ballot), and the H&A Committee shall be instructed to place the necessary information for such voting before Members Council at least two months prior to the applicable meeting. (65-01-28-19/06-01-25-08/10-06-30-15)

D. It is the policy of the Society not to consider for approval any Society honors or awards posthumously, other than the Hall of Fame and Pioneers of the Industry.
APPENDIX E: CONTENT, FORMAT AND HANDLING OF MOTIONS

INTRODUCTION

A motion is an important tool for conducting business within the Society and for proposing action on an important issue. A motion should be written in succinct language. If a motion is expected to move through several levels of approval (for example from a subcommittee to a committee, then to a council and ultimately to the Board), state what is recommended but omit references as to which body must approve it. The committee can then pass the motion along to the council (and to the Board, if required) as it is written without having to rephrase it. If a rule or policy already exists, a motion to re-affirm the rule or policy is out of order.

CONTENT

When a motion is made recommending that a higher body approve it, the following should be included:
- Motion (request action)
- Background (reason for action)
- Fiscal impact (estimated cost of action)

FORMAT

The body of a motion should contain as completely as possible the following information:

1. State the action that is being recommended. For example,
   “I move that $75,000 be allocated...”

2. Qualify elements of the motion so that they are not open for interpretation, debate or negotiation. For example,
   “I move that $75,000 be allocated to develop a certification course on fan design...”

3. Include the time frame for completing the action if a time is desired. For example,
   “I move that $75,000 be allocated to develop a certification course on fan design to be completed by June 2007.”

4. If a motion is anticipated to become a Rule of the Board (ROB) it should be worded as a rule. A rule number should also be suggested. Existing related rules may be included in the background. If a motion is to amend an existing ROB, deletions should be shown as strikethroughs and additions should be shown as double underlines. See examples below.

   New ROB:
   “I move that a new ROB be added to ROB Volume 2, 2.105.003, to read as follows:
   A reference manual should contain reference documents, white papers, guides etc. that the council or committee uses in conducting its work but that are not appropriately a part of the Rules of the Board or the council’s or committee’s Manual of Procedures.

   Amendment to existing ROB:
   “I move that the proposed change to the Election and Appointment Procedures be approved as follows (strike through = deletion; double underline = addition):

Rev. 2006.09.17

1. Unless otherwise provided, the committee members and the respective chairs thereof shall be selected by the President-Elect in advance of the annual meeting and be confirmed by the President-Elect when he/she
takes office as President, with the approval of the Board of Directors at the first meeting called after the report on the election. (SBL 7.2)

2. The selection procedure for each standing committee which is not directly elected by the Board of Directors is as follows: At least two months prior to the Annual Meeting, the President-Elect shall submit recommended appointments of standing committees and their respective chairmen and vice chairmen to the Board of Directors. With approval of the Board, these designated shall, at least 30 days prior to the annual meeting. Appointees shall be invited to attend any meetings of their committees that may be called during the Annual Meeting. Committee appointments shall be approved by the Board of Directors as required by the Society Bylaws (65-07-04-23/95-01-29-05).

BACKGROUND

Provide progression of events, the reason (what the action would accomplish) or other information that would help the approving body to debate and decide on the issue. The more thorough the background, the more convincing the arguments, the more complete the research, the more beneficial the request is to the betterment of the Society, the more likely the motion will be approved. Include the recommending body’s vote count to assist the approving body in determining the level of support or controversy.

When a motion is made, it must be seconded unless it is from a committee or subcommittee. Once the motion is moved and seconded, the chair then states the motion unless it is presented in writing and all members have copies.

FISCAL IMPACT

Include an estimate of the cost to take the action requested. State whether this amount has been included in the budget for the year in which the expense will be incurred. If the expense will be incurred in a future year, request that the amount be included in that year’s budget. If there will be no fiscal impact, this should be stated.

* * * * *
Attachment A - Summary of Motions based on Robert’s Rules of Order Newly Revised
Attachment B - Format for Motion (used for a motion made during a meeting)

Rev. 2006.09.17
### Summary of Motions

**Based on Robert’s Rules of Order Newly Revised**

This summary provides *At A Glance* information on handling motions that may arise during a meeting.

<table>
<thead>
<tr>
<th>MOTION</th>
<th>PURPOSE</th>
<th>SECOND</th>
<th>DEBATABLE</th>
<th>AMENDABLE</th>
<th>MOTIONS HAVING HIGHER RANK</th>
<th>VOTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Main</td>
<td>Introduce business</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>All</td>
<td>Majority</td>
<td>The lowest rank of motion. To Amend Rules a 2/3 vote and Previous Notice is required.</td>
</tr>
<tr>
<td>2. Postpone</td>
<td>Deler a matter or kill it</td>
<td>Yes</td>
<td>Yes (on the Main Motion as well as postpone)</td>
<td>No</td>
<td>All except 1</td>
<td>Majority</td>
<td>May be applied only to main motions including Questions of Privilege.</td>
</tr>
<tr>
<td>3. Amend *</td>
<td>To change or modify a pending motion</td>
<td>Yes</td>
<td>Yes (but confined to the amendment)</td>
<td>Yes</td>
<td>All except 1,2</td>
<td>Majority</td>
<td>Amend by insert or add, strike out, strike out and insert, substitute (a whole paragraph or resolution)</td>
</tr>
<tr>
<td>4. Commit x</td>
<td>To place business in hands of a few (e.g. a committee)</td>
<td>Yes</td>
<td>Yes (as to propriety of committing only)</td>
<td>Yes</td>
<td>5,6,7,8,9</td>
<td>Majority</td>
<td>The motion Commit adheres to the Main Motion and together they make one question.</td>
</tr>
<tr>
<td>5. Postpone to set a time</td>
<td>To set a time when a matter must be considered</td>
<td>Yes</td>
<td>Yes (only as to the propriety of postponing)</td>
<td>As to time As to Special or General Order</td>
<td>6,7,8,9</td>
<td>Majority 2/3 for Special Order</td>
<td>If passed the subject cannot be taken up before the set time except by a 2/3 vote. General Order – a certain day Special Order – a certain time</td>
</tr>
<tr>
<td>6. Previous Question</td>
<td>To stop debate and order an immediate vote</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>7,8,9</td>
<td>2/3</td>
<td>To make this motion state: The Previous Question is moved on (State main motion or amendment on which vote is demanded.) Calling out question, question carries no requirement for action by the chairman.</td>
</tr>
<tr>
<td>7. Table Take from table</td>
<td>To lay aside a matter such that it may be considered later.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>8,9</td>
<td>Majority</td>
<td>Table is not used to suppress the motion. Postpone Indefinitely should be used to suppress.</td>
</tr>
<tr>
<td>8. Orders of the Day</td>
<td>To force a meeting to return to the program, which is the Order of the Day</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>9</td>
<td>2/3</td>
<td>Must be called for at a time when Orders of the Day are being deviated from (Except Special Orders).</td>
</tr>
<tr>
<td>9. Question of Privilege</td>
<td>To get the attention of the Chair at once</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Adjourn</td>
<td>Majority</td>
<td>Use to Ask a Question – to attend to some matter of business that cannot wait. Usually decided informally, without floor. Do not wait for recognition from the Chair.</td>
</tr>
</tbody>
</table>

* A majority means more than half of those who voted for or against the motion. A 2/3 vote means 2/3 of those who voted for or against the motion.
* There may be only one amendment to the *Main Motion* pending at one time. This 1st degree amendment may have only one amendment (2nd degree) pending at one time. As each is voted, other amendments may be offered in succession. *Previous Question* (stop debate and vote) may be applied to a motion or an amendment. A *Substitute Motion* is an *Amendment*. Amendments must be germane to the subject matter to be amended. After all amendments are voted, vote on what has become the *Main Motion as amended*.

x When a committee is to be appointed, nomination for the committee may be made from the floor. Chair puts vote; beginning with first named in succession. When the naming of the committee devolves upon the chairman, *before the committee can act*, the names must be announced to the assembly, unless permission is granted to the chairman to do otherwise. Whoever appoints the committee has power to appoint the chairman and fill vacancies. The committee reports to the assembly.
MOTION
Honors & Awards Committee

Date_________________

MOVED BY: ___________________________________________________________

SECONDED BY: _________________________________________________________

MOTION: ______________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

BACKGROUND: __________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

FISCAL IMPACT: _________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

Vote count: For_____ Against_____ Abstaining_______

Chairman voting? ☐ Yes ☐ No

☐ Motion passed ☐ Motion failed

Motion referred to: _______________________________________________________

2006-06-12

Honors and Awards Committee
Reference Manual (February 2019)
APPENDIX F: MENTORING PROGRAM

(ROB 100-128-003)

During the final meeting of the Fiscal Year, the Board of Directors/Board of Governors, Council or Committee Chair shall appoint an incumbent to be the mentor for an incoming member. A mentor should be appointed for each new member. The mentor will be responsible for the following tasks:

- Before the next meeting of the Board of Directors/Board of Governors, Council or Committee 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. Board of Directors/Board of Governors, Council, Committee or Chapter functions, focus and objectives.
  2. Review the Board Approved Rules (BAR) and Manual of Procedures (MOP) with the new member.
  3. Discuss the typical meeting format and member duties and responsibilities.

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 Board Approved Rules (BAR), 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 encourage to develop a rapport with other members to effectively work with fellow members to maximize productivity.

The chair of the Board of Directors/Board of Governors, Council, Committee or chapter 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 relationship terminates at the end of the new member’s first year in the group.
Process of Measurement at the Society and Regional Level:

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Actual %</th>
<th>Tool</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Each Board of Directors/Board of Governors, Council, Committee will include the mentoring program in their Manual of Procedures (MOP).</td>
<td></td>
<td>MOP</td>
<td>Committees/Council</td>
</tr>
<tr>
<td>2. The Committee Management by Objectives (MBO) should include an objective for mentoring which will be reported to the Council at each meeting.</td>
<td></td>
<td>MBO</td>
<td>Committees/Council</td>
</tr>
<tr>
<td>3. The mentoring program will be monitored to determine its effectiveness through the MBO process.</td>
<td></td>
<td>MBO</td>
<td>Council</td>
</tr>
<tr>
<td>4. The Councils at each annual meeting will include in their report to the Board of Directors the status of that Council’s mentoring program.</td>
<td></td>
<td>BOD Report</td>
<td>Council</td>
</tr>
</tbody>
</table>

Process of Measurement at the Chapter Level:

Focus and measurement will be accomplished using the Presidential Award of Excellence (PAOE) program. Points will be awarded based on a chapter submitting an effective plan to accomplish mentoring of new members. Short term results will be measured by PAOE compliance. Long term measurement would be completed by retention % reduction for new members who have belonged to the Society for less than two years.

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Actual %</th>
<th>Tool</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Percent of chapters having a mentoring program in place as reported by PAOE</td>
<td></td>
<td>PAOE Report</td>
<td>Membership Promotion Committee</td>
</tr>
<tr>
<td>2. Retention decrease of new members</td>
<td></td>
<td>Membership Report</td>
<td>Membership Committee</td>
</tr>
</tbody>
</table>
APPENDIX G: CODE OF ETHICS

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

Approved by ASHRAE Board of Directors January 31, 2007

As members of ASHRAE, we pledge to act with honesty, fairness, courtesy, competence, integrity and respect for others in our conduct.

Efforts of the Society, its members, and its bodies shall be directed at all times to enhancing the public health, safety and welfare.

Members and organized bodies of the Society shall be good stewards of the world’s resources including energy, natural, human and financial resources

Our products and services shall be offered only in areas where our competence and expertise can satisfy the public need.

We shall act with care and competence in all activities, using and developing up to date knowledge and skills.

We shall avoid real or perceived conflicts of interest whenever possible, and disclose them to affected parties when they do exist.

The confidentiality of business affairs, proprietary information, intellectual property, procedures, and restricted Society discussions and materials shall be respected.

Each member is expected and encouraged to be committed to the code of ethics of his or her own professional or trade association in their nation and area of work.

Activities crossing national and cultural boundaries shall respect the ethical codes of the seat of the principal activity.
APPENDIX H: CONFIDENTIAL INFORMATION AGREEMENT

The ASHRAE Honors and Awards Committee has an important role in ASHRAE. The selection of highly qualified candidates for all honors and awards is very important.

In order to make the best possible decisions on the nominees, free and open discussion as well as exchange of information must be conducted. This requires the strictest adherence to the requirement that none of the deliberations or other information presented at meetings of the Honors and Awards Committee be disclosed outside of the committee meetings. The requirement for non-disclosure of information is not limited by time.

By signing this confidential information agreement, I agree that I am committed to strictly observing the non-disclosure of any of the Honors and Awards Committee discussions or material pertaining to candidates. I realize that this is an obligation that I will adhere to faithfully and I understand to do otherwise is a breach of trust given to me by my fellow committee members and the Society. In addition, disclosure of restricted Society discussions constitutes a violation of the ASHRAE Code of Ethics contained in the Rules of the Board.

Member Name (Printed)  ___________________________  Date  _____________________
Signature of Member  ___________________________

Signature of Witness  __________________________________________

Chair, Honors and Awards Committee
APPENDIX I - HONORS AND AWARDS REVIEW SCHEDULE

Honors and Award Manual of Procedures
Operating Rules

8.14 All Society awards shall be reviewed every five (5) years considering, but not limited to: current prestige and appeal to the society, number of candidates on an annual basis, financial status of the award, and basis for original establishment of award. The awards to be reviewed each year shall be those in a specific group as listed in Appendix A of the H&A Reference Manual (Form of all Honors and Awards chart). The initial year of review of a group of awards shall include those in the “Personal Honors” group. Reviews in succeeding years shall include awards in “Personal Awards for General Society Activities,” “Personal Awards for Specific Society Activities,” “Paper Awards,” and “Society Awards to Groups or Chapters.” Review of award groups shall commence in 2000-01. Elimination of or revisions to awards are to be submitted to Members Council and the Board for approval.

Review Schedule

<table>
<thead>
<tr>
<th>Year</th>
<th>Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-17</td>
<td>F. Paul Anderson, Andrew T. Boggs, Dan Mills, Chapter Program Star, Technology, Gov’t Advocacy, Environmental Health</td>
</tr>
<tr>
<td>2017-18</td>
<td>Dist. 50-Year, Standards Achievement, Student Activities, Journal Paper, Student Design Competition, YEA Award of Individual Excellence, Youth Outreach Award</td>
</tr>
<tr>
<td>2018-19</td>
<td>ASHRAE Award for Distinguished Public Service, Holladay, Crosby Field, Carrier, Transactions Paper, Poster, Hightower</td>
</tr>
<tr>
<td>2019-20</td>
<td>Fellow, DSA, Exceptional Service, Ralph Nevins, John F. James, Milton Garland, Refrigeration Comfort Cooling</td>
</tr>
</tbody>
</table>

Approved 06-27-2011
March 21, 2005

TO: Council/Committee Chairs for “Pass-Through” Awards

FROM: Donald G. Rich
Chair, Honors and Awards Committee

SUBJECT: Five-Year Review of ASHRAE Honors and Awards

The Society Honors & Awards Committee is required to review all Society awards at least every five years. This is to ensure that each award continues to meet its intended need and that the candidate-selection process for each award is properly implemented. This applies not only to those awards that H&A administers (Hall of Fame, F. Paul Anderson, Fellow etc.), but also to the so-called “pass-through” awards that originate from other Society groups.

In order to properly conduct this review H&A must obtain input from each group that sponsors a “pass-through” award. Specifically, H&A must receive answers from your committee (Council) to the following questions as they apply to the particular award(s) that your committee (Council) sponsors.

1. Does the award have current appeal?
2. Does the award’s scope overlap or conflict with other current or proposed awards?
3. Do you believe the majority of ASHRAE members would be of the opinion that this award should be presented at a Chapter Meeting, a Regional Meeting, a Society Committee function, the Plenary Session, or possibly some other Society function? Please state the reasons for your choice.
4. What are the criteria for the award? Do they include a requirement for adherence to the ASHRAE Code of Ethics? Do they include a limit on the number of candidates that may receive the award annually? Please include a criteria statement that can be published in the awards section of the ASHRAE website.
5. Is there a written process for the selection of candidates? If so, please send a copy. Also, please include a statement regarding the selection process that can be published in the ASHRAE website.
6. Are there financial commitments associated with the award such as travel costs, honoraria, or earmarked income from the ASHRAE Foundation?
7. Of the following six groups, which do you feel is most appropriate for your award?
   - Personal Honors
   - Personal Awards for General Society Activities
   - Personal Awards for Specific Society Activities
   - Paper Awards
   - Society Awards to Groups or Chapters
   - Regional Awards
8. Is your award named for an individual? If so, provide details as to why it is so named and a brief statement regarding that individual that can be given to each award recipient.

Your reply by **August 1, 2005** will be greatly appreciated.

Thank you for your help on this important project.

Cc: Staff Liaisons, Councils and Committees for “Pass Through” Awards
### APPENDIX I-2: SAMPLE FIVE-YEAR REVIEW TRACKING SHEET

<table>
<thead>
<tr>
<th>Award</th>
<th>Responsible Committee/Council</th>
<th>Committee/Council Chair</th>
<th>Staff Liaison</th>
<th>Date Response Rec’d</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Homer Addams Award</td>
<td>Research Administration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Lincoln Bouillon Award</td>
<td>Membership Promotion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. E.K. Campbell Award of Merit</td>
<td>Life Members Club</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Chapter Program Star Award</td>
<td>Chapter Technology Transfer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Dan Mills Technical Award</td>
<td>Chapter Technology Transfer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Government Activities Award</td>
<td>Grassroots Government Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Technology Award/Award of Engineering Excellence</td>
<td>Chapter Technology Transfer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. William J. Collins Research Promotion Award</td>
<td>Research Promotion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Lou Flagg Historical Award</td>
<td>Historical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Willis H. Carrier Award</td>
<td>Conferences &amp; Expositions (CEC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Crosby Field Award</td>
<td>CEC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Poster Presentation Award</td>
<td>CEC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Technical Paper Awards</td>
<td>CEC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Milton W. Garland Commemorative Refrigeration Award for Project Excellence</td>
<td>Refrigeration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Refrigeration Comfort Cooling Award for Project Excellence</td>
<td>Refrigeration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. John F. James International Award</td>
<td>Members Council</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. ASHRAE Journal Paper Award</td>
<td>Publications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Ralph G. Nevins Physiology &amp; Human Environment Award</td>
<td>TC 2.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Standards Achievement Award</td>
<td>Standards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Student Activities Achievement Award</td>
<td>Student Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award</td>
<td>Responsible Committee/ Council</td>
<td>Committee/ Council Chair</td>
<td>Staff Liaison</td>
<td>Date Response Rec’d</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------</td>
<td>--------------------------</td>
<td>---------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>21. Student Design Project Competition</td>
<td>Student Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Service to ASHRAE Research Award</td>
<td>Research Administration Committee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. George B. Hightower Technical Achievement Award</td>
<td>Technical Activities Committee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. ASHRAE Hall of Fame</td>
<td>Honors &amp; Awards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. ASHRAE Pioneers of the Industry</td>
<td>Honors &amp; Awards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Honorary Member</td>
<td>Honors &amp; Awards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. F. Paul Anderson Award</td>
<td>Honors &amp; Awards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. ASHRAE Award for Distinguished Public Service</td>
<td>Honors &amp; Awards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Andrew T. Boggs Service Award</td>
<td>Honors &amp; Awards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. Louise &amp; Bill Holladay Distinguished Fellow Award</td>
<td>Honors &amp; Awards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. Fellow Grade</td>
<td>Honors &amp; Awards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. Distinguished Service Award</td>
<td>Honors &amp; Awards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. Exceptional Service Award</td>
<td>Honors &amp; Awards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. Distinguished Fifty-Year Member Award</td>
<td>Honors &amp; Awards</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX I-3: HONORS AND AWARDS RECOMMENDATION FORM

Name of Award: ________________________________________________________________

Name of Candidate(s): __________________________________________________________

ASHRAE Member Number (s) Required for H&A approval
___________________________________________________________________________

Statement of Candidate’s qualifications for the award (required for H&A approval):
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

The signature below certifies that:
☐ The procedures for the award above submitted to the Honors and Awards Committee were followed in making this recommendation.

☐ To the best knowledge of the nominator, the nominee adheres to the ASHRAE Code of Ethics.

___________________________________________________________________________
Council/Committee Chair

___________________________________________________________________________
Date

Please submit to:
Honors & Awards Committee
Staff Liaison
1791 Tullie Circle, N.E.
Atlanta, GA 30329

cdevaughn@ashrae.org

2/19/14
APPENDIX J-1: GUIDELINES FOR ASHRAE FELLOW NOMINATORS

Revised February 2018

The deadline for receipt of Fellow Nominations at ASHRAE Headquarters is December 1

Email the completed nomination in Adobe pdf format to: HonorsandAwards@ashrae.org

The Fellow Grade of membership recognizes exceptional contributions which distinguish the nominee.

Fellow Qualifications:

Section 15.2, Honors & Awards Manual of Procedures

15.2.1 Requirements for eligibility for election to the Fellow Grade by the Board of Directors:
    15.2.1.1 Good standing as a full grade Member for at least ten (10) years
    15.2.1.2 Participation or service to ASHRAE is not a metric to be evaluated.
    15.2.1.3 Attained distinction and made substantial contribution in HVAC&R and in the built environment such as:
       15.2.1.3.1 Education and/or research
       15.2.1.3.2 Engineering design/consulting/forensics
       15.2.1.3.3 Invention/original work
       15.2.1.3.4 Engineering executive on projects of unusual or important scope
       15.2.1.3.5 Sharing knowledge and contribution through outreach activities such as mentoring, publications, oral presentations and involvement in industry activities
       15.2.1.3.6 Other activities leading to advancement of the arts and sciences of HVAC&R and the built environment including that of contractors, manufacturers and their representatives
    15.2.1.4 Distinction is interpreted to mean: seen by his/her peers in the industry as a person of excellence
    15.2.1.5 Substantial contribution is interpreted to mean: one or more contributions to the industry which had a notable, unique, and positive impact in the advancement of the arts and/or sciences of HVAC&R, the built environment and a sustainable world.

Proposals for Fellow undergo a peer review by the ASHRAE Honors and Awards Committee.

References: (Available at http://www.ashrae.org/honors)

- COMPLETE LISTING OF ASHRAE FELLOWS
- ASHRAE FELLOW NOMINATION FORM FOR CURRENT YEAR
Requirements for Eligibility

The basic requirements are: good standing as a full member for at least 10 years, and acknowledged distinction and having made substantial contribution(s) in HVAC&R. Hence, these will be the criteria for evaluation. For this particular award, activities and service within ASHRAE are not considered. The DSA and ESA recognize achievement in those areas.

Distinction and Substantial Contribution:

A working definition for distinction is: “seen by his/her peers in the industry as a person of excellence.” Amongst the potential measures for distinction are:
   a) Comments from the referees and presenters of the nomination, and their own standing in the industry and proper perspective to evaluate the quality and eminence of the applicant
   b) Recognitions, awards, citations from other organizations, clients, associations, municipalities, etc.

A working definition for substantial contribution is: “one or more contributions to the industry which had a notable, unique and positive impact in the advancement of the arts and/or sciences of HVAC&R, the built environment and a sustainable world.”

That definition acknowledges that a contractor who might have conceived one particular, new, and unique method for installation of equipment, which led to major changes in the cost and efficiency, and was emulated by his/her competitors might be a stronger candidate than a researcher with 200 published papers openly cited by other experts in that area, but never leading to a tangible impact on the industry. Potential measures, or qualifiers of substantial contribution are:
   a) Special aspects of the main contribution(s)
   b) Importance of this contribution(s) in value and/or impact on the industry
   c) Aspects of the contribution(s) that are original and attributed exclusively to the candidate
   d) Recognition(s) and/or awards, if any, that followed this contribution(s)
   e) Sharing knowledge and contribution through outreach activities such as mentoring, publications, oral presentations and involvement in industry activities

In general, reference letters from professionals familiar with the nature of the contribution(s), should provide insight into answers to those questions.

Differentiation between advancements in the “arts” and in the “sciences”:

Contributions in the “sciences”:
Advancement in the “science” of HVAC&R, via activities such as education and research, should be measured by quality rather than quantity. For example, one single research publication, presenting a new and original computer model which resulted in major impact on the industry might be a “distinctive and substantial” contribution – on the other hand, a series of 40 papers all presenting results using a commercially available model differing in their correspondence boundary or initial conditions, while potentially of interest and impressive would not by itself meet the criteria for advancement to a fellow grade. (Nominations with publications listed are encouraged to attach copies of three publications considered by the candidate to be the major contributions).

Distinctive and substantial contributions through research and related activities should also demonstrate relative broad application in the industry. Five patents resulting from research, with none leading to a product of benefit to society, will never compare with one single patent which was applied to a product and resulting in improved quality of life for the public. (Nominations based on research should include at least one and not more than three examples of research programs and/or patents that led to product advancements, or some other tangible evidence of advancement in HVAC&R).
In like manner, distinctive and substantial contributions in education would not be measured solely by publications, changes in curriculum, dollars of research, administrative roles, but rather by the product – that is quality and accomplishments of students having entered into the HVAC&R industry and their testimonies of the impact of their professor in their lives.

**Contributions in the “arts”:**
Distinction and substantial contributions in the “arts” (that is, “how to do it,” “applications,” etc.), could be on the part of ASHRAE members serving the public as a) design/consultant engineers, b) contractors, c) OEMs/sales engineers, and/or d) building owners/facility users. (That is the “big four”).

The criteria are harder to define and implement, in part for two reasons: a) quantity might become an important parameter, b) the work is usually made by groups of professionals rather than one unique person. However, two aspects should not be compromised – the impact and uniqueness of the contribution.

The impact of the contribution upon society, rather than the specific nature of the contribution itself, could be addressed by considering questions such as: a) How has this contribution shown a measurable financial benefit? b) How has this contribution shown a documented benefit on the environment /comfort? c) How has this contribution shown a quantifiable societal benefit? Examples for the above could be: a) new motor type applied to elevators in a high rise hotel, reducing the cost of power consumed, with broad potential application in other buildings, b) unique distribution and installation strategies for emergency portable chillers following a major storm, c) development of low-head hydro refrigeration systems in parts of Africa.

**FELLOW NOMINATION REQUIREMENTS**

A nomination for elevation to ASHRAE Fellow must be initiated by an ASHRAE member and supported by at least one Fellow Member of ASHRAE who has knowledge of the nominee’s background. If the nominator is an ASHRAE Fellow, the professional references need not be a Fellow. The nomination must also be accompanied by at least one professional reference (not more than two). The nominator and professional references must be capable of evaluating the nominee’s distinction and contributions with a substantial impact on the advancement of the arts and/or sciences of HVAC&R.

1. Determine the completion date for your nomination and when each of the following tasks will be accomplished. The *deadline for receipt of Fellow nominations at ASHRAE Headquarters is December 1.*

2. Determine the membership status of your nominee:
   - [ ] Has the nominee been a full grade Member in good standing for the last ten (10) years?
   - [ ] Can you attest that the nominee adheres to the ASHRAE Code of Ethics?

   If the answer to either of these is 'no' and will be 'no' at the time of submission, STOP: The nominee does not qualify! If you are unsure of the member grade requirements, contact the Honors & Awards Committee Staff Liaison at (678) 539-1128 or cdevaughn@ashrae.org.

3. Confirm that your nominee’s ASHRAE Biographical Record is current. Do *not include a personal Curriculum Vitae (CV) or Resume with your nomination.*

4. Obtain a digital photograph of the nominee for submission with the nomination package.

5. Identify your ASHRAE Fellow and Professional Reference(s). See Instructions for ASHRAE Fellow and Professional Reference Letters. Solicit references from at least one ASHRAE Fellow and one (and not more than two) professional reference(s) for each individual contribution identified for the nominee. The nominee's ASHRAE Biographical Record will generally give you most of the details you will require in preparing the nomination.
References must be from organizations different than that of the nominee. They are not required to be ASHRAE members, but must be capable of describing the impact of the nominee’s substantial contribution(s) to the advancement of HVAC&R and to the built environment.

6. Complete the ASHRAE Fellow Nomination Form.

7. Write your nomination letter as the nominator. After all the work and your vast knowledge of the nominee's qualifications, you are in the most supportive position. As appropriate, refer to specific items in the nominee’s ASHRAE Biographical Record.

8. Prepare a description of the nominee’s substantial contribution(s) and distinction in the advancement of HVAC&R and the built environment. See section IV of the Fellow Nomination Form. This should be 100 words or less in length. This is a Mandatory requirement.

GUIDELINES FOR ASHRAE FELLOW AND PROFESSIONAL REFERENCE LETTERS

NOMINATOR'S REQUEST FOR FELLOW LETTERS

Following a phone call, and obtaining a commitment for a letter from at least one ASHRAE Fellow (or two):

• Send the nominee’s ASHRAE Biographical Record and the Fellow Qualifications to the Fellow(s) preparing letters

• Request a letter of support in pdf format identifying the nominee by name. The letter of support must be a testimony of the distinction and professionalism of the nominee

• Advise the Fellow that ASHRAE service should not be the focus of the letter. The letter should refer to the professionalism and ethics of the candidate.

• Instruct the Fellow to provide the following information in a one-page letter:
  ➢ Relationship of Fellow to the nominee
  ➢ Highlights of the nominee’s educational and professional background
  ➢ Highlights of the nominee’s significant contributions
  ➢ Explanation of how the nominee has attained distinction

• Agree to a deadline well in advance of December 1 and provide your email address for the response

NOMINATOR'S REQUEST FOR PROFESSIONAL REFERENCE LETTERS

Following a phone call (or email exchange), and obtaining a commitment from one or two professional references.

• Send the nominee’s ASHRAE Biographical Record, the Fellow Qualifications, and the completed Fellow Nomination Form to the individuals providing Professional Reference letters

• Request a letter of support in pdf format identifying the nominee by name. The letter of support must be a testimony of the distinction of the contributions and technical accomplishments of the nominee

• Instruct the individual to provide the following information in a one page letter:
  ➢ His/her name, contact information, and position in the industry
  ➢ His/her professional background and expertise and relationship to the nominee
- Critical evaluation and demonstration of substantial impact in the advancement of the arts and sciences of HVAC&R of the substantial contribution(s)
- Comments on nominee’s distinction

- Agree to a deadline well in advance of December 1 and provide your email address for the response

**THINGS TO REMEMBER**

The deadline for receipt of your Fellow nomination at Society Headquarters is **December 1**.

Email the completed nomination package in Adobe pdf electronic format to **HonorsandAwards@ashrae.org**

It is the responsibility of the nominator to submit the nomination packet to Society Headquarters by the **December 1** due date. Sending the packet earlier will enable the Staff to review the packet and let you know if you omitted an important document.

Make sure the nomination is in order by using the "Check List" provided at the end of this document. Avoid having the nomination returned or delayed by not providing all required information.

**WHAT TO EXPECT**

**What Happens? What should you expect once you send your hard work to ASHRAE? How long does it take?**

- Receipt is acknowledged by the Honors and Awards Staff Liaison in writing to the nominator. If an acknowledgement is not received within five (5) business days, contact the Honors and Award Committee/Staff Liaison at cdevaughn@ashrae.org.
- The Staff Liaison will send the nomination to the Honors and Awards Committee for evaluation at the next Winter Conference, which usually occurs in late January.
- The Honors and Awards Committee reviews the nomination and will vote whether to forward the nomination to the Board of Directors for election of the nominee to Fellow grade.
- Those nominees elected to Fellow grade by the Board of Directors will be presented a lapel pin and a plaque with a medallion at the Plenary Session during the following the next Winter Conference.

**ASHRAE FELLOW NOMINATION CHECK LIST**

An incomplete nomination will be returned without review by the Honors and Awards Committee. Material that is supplementary to that required is not evaluated by the Committee.

**A. Nominator, Fellow, and Professional References**

- Is the Nominator an ASHRAE Member?
- Have you included your own letter as nominator?
- Is there at least one supporting letter from an ASHRAE Fellow?
- Are there one or two Professional Reference letters?
- Are names, email addresses, and addresses of the Nominator, Fellow, and Professional Reference(s) included?

**B. Letters of Support from Fellow and Professional References**

- Do the letters support the distinction of the nominee?
- Do the letters from the Professional Reference(s) clearly evaluate the contribution(s) with a substantial impact on the advancement of the arts and/or sciences of HVAC&R and on the industry?

**C. Professional Record**
☐ Does the significant work and/or publications listed on the Fellow Nomination Form emphasize the contribution(s) with a substantial impact on the advancement of the arts and/or sciences of HVAC&R?
☐ Is a current ASHRAE Biographical Record attached?
☐ Are there contributions to ASHRAE Technology that distinguish the nominee from his/her peers adequately identified as such?

D. Brief Description of Nominee’s Accomplishments

☐ Have you provided the MANDATORY 100-words-or-less description of the contribution(s) with a substantial impact on the advancement of the arts and/or sciences of HVAC&R and on the industry?

E. Overall Fellow Nomination Packet

☐ Is the submittal legible and does it conform to the Guidelines?
☐ Is a digital photograph of the nominee included?
☐ Have you included all of the required materials?
APPENDIX J-2: ASHRAE FELLOW NOMINATION FORM

Revised February 2018

FELLOW NOMINATIONS ARE DUE IN ASHRAE HEADQUARTERS DECEMBER 1

All nomination material must be provided to ASHRAE electronically. Email the completed nomination package in Adobe.pdf electronic format to: HonorsandAwards@ashrae.org

PLEASE REVIEW THE GUIDELINES FOR ASHRAE FELLOW NOMINATORS BEFORE COMPLETING THIS FORM

<table>
<thead>
<tr>
<th>I. NOMINEE’S NAME:</th>
<th>Nomination Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year Elected to Grade of Member</td>
<td></td>
</tr>
<tr>
<td>Current Position Title:</td>
<td></td>
</tr>
<tr>
<td>Company:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Phone:</td>
<td></td>
</tr>
<tr>
<td>Email Address:</td>
<td></td>
</tr>
</tbody>
</table>

FOR STAFF USE ONLY

Date Nominee Advanced to Full Grade Member

<table>
<thead>
<tr>
<th>II. NOMINATOR:</th>
<th>Nominator attests that to the best of his/her knowledge the nominee adheres to the ASHRAE Code of Ethics.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Phone:</td>
<td></td>
</tr>
<tr>
<td>Email Address:</td>
<td></td>
</tr>
</tbody>
</table>

ASHRAE Grade Supplied by Staff
### III. SUPPORTING FELLOWS AND PROFESSIONAL REFERENCES:
(Note that Professional References do not have to be ASHRAE Members)

**FELLOW REFERENCE (AT LEAST ONE REQUIRED – UNLESS THE NOMINATOR IS A FELLOW)**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 1. Name: |   | Address: |   | ASHRAE Grade
|   |   | Phone: |   | Supplied by Staff
|   |   | Email: |   |   |

**ADDITIONAL REFERENCES**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 2. Name: |   | Address: |   | ASHRAE Grade
|   |   | Phone: |   | Supplied by Staff
|   |   | Email: |   |   |

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 3. Name: |   | Address: |   | ASHRAE Grade
|   |   | Phone: |   | Supplied by Staff
|   |   | Email: |   |   |

### IV. OUTSTANDING ACCOMPLISHMENTS:
Provide a 100 words or less description of the nominee’s substantial contribution(s) and distinction in the built environment. **THIS IS A MANDATORY REQUIREMENT.**

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ASHRAE FELLOW NOMINATION FORM

V. SIGNIFICANT WORK:
List in chronological order three of the nominee’s most significant achievements/projects and/or publications. For each achievement/project or publication, identify the specific contribution listed in the Fellow Qualifications and provide a BRIEF summary.

<table>
<thead>
<tr>
<th>ACHIEVEMENTS/PROJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATES: FROM/TO</td>
</tr>
<tr>
<td>ACHIEVEMENT/PROJECT NAME</td>
</tr>
<tr>
<td>ACHIEVEMENT/PROJECT FOCUS/DESCRIPTION</td>
</tr>
<tr>
<td>CONTRIBUTION</td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>3.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PUBLICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
</tr>
<tr>
<td>TITLE</td>
</tr>
<tr>
<td>PUBLICATION</td>
</tr>
<tr>
<td>TYPE</td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>3.</td>
</tr>
</tbody>
</table>
APPENDIX K: PIONEERS OF THE INDUSTRY NOMINATION FORM

Pioneers of the Industry Nominations are due in ASHRAE Headquarters **December 1**.

Please return to: ASHRAE
Atttn: Honors and Awards Committee
1791 Tullie Circle, N. E. | Atlanta, GA  30329
Tel:  (678) 539-1128 • Fax (678) 539-2128
Email: cdevaughn@ashrae.org

I. Name of Nominee:
   Date and Place of Birth:
   Last Occupation or Profession:
   Significant Positions Held:

II. List outstanding contributions of the nominee which have advanced the heating, refrigeration, air conditioning and ventilation industry. Include other pertinent information that clearly indicates the nominee’s outstanding contributions in order of significance. Note: Attach additional sheets, if necessary.

III. Other Type of Activity:

IV. Honors and/or Recognitions:

V. Publications

VI. Professional Memberships (include offices held and committee involvement)

VII. Criteria for ASHRAE Pioneers of the Industry:
   ▪ Must have made milestone contributions to the growth of Air Conditioning, Heating, Refrigeration, and/or Ventilation. A milestone contribution is an innovative technological advancement in the industry. Evidence of distinction in these areas may be accomplished through invention, entrepreneurial activity, research, publishing, outstanding academic, or engineering leadership, or a combination thereof.
   ▪ Must be deceased.
   ▪ The personality and popularity of the candidate and evidence of awards shall be considered only in the context of evaluating the contribution which shaped the industry.

   * * * A biography and photo of the nominee are required with the nomination. * * *

VIII. Nomination submitted by:
   Name:
   Address:
   Phone:
   Email:

Honors and Awards Committee 34
Reference Manual (February 2019)
APPENDIX L: DSA/ESA INSTRUCTIONS AND POINT TALLY FORM

NOMINATION AND POINT TALLY FORM
For Distinguished Service Award (DSA)
And Exceptional Service Award (ESA)
Revised February 25, 2013

DSA/ESA Nominations are due at ASHRAE Headquarters May 1

1. The DSA/ESA Nomination and Point Tally Form, a current ASHRAE Biographical Record, and digital photo of the nominee must be provided to ASHRAE electronically. Email the completed nomination in Adobe pdf format to
cdevaughn@ashrae.org

2. Member nominated by other members, chapters, regions, committees as well as self-nominations are accepted by the Honors and Awards Committee for DSA and ESA submissions.

3. A current ASHRAE Biographical Record must be provided with each DSA/ESA nomination. Each point count listed on the Point Tally Form should be supported by the dates and activities detailed on the nominee’s ASHRAE Biographical Record.

4. Attach a digital photograph of the nominee to the nomination package. This is a MANDATORY requirement.

5. In the second column of the Point Tally Form, list dates (Society years) and name for each activity claimed, e.g., standing committee name, standard project committee name, title of publication or lecture.

6. In the third column of the Point Tally Form (ASHRAE BIO SECTION), list the Section on the nominee’s ASHRAE Biographical Record corresponding to each activity and date listed in the first column, e.g., 5a, 5b, etc.

7. In the last column of the Point Tally Form, list points for each activity and the totals for each category at the end of each section.

8. Points are required in at least three (3) categories (A-F) for the DSA.

9. Three points are required in at least three (3) categories (A-F) for ESA.

10. Use an additional sheet if more than two (2) published papers are claimed in Categories E and F.

11. If multiple points are claimed for the same activity or position, list all years in the Activity/Date column.

12. Note that all Categories A-F have point maximums for several activities.

13. List the total for each category and the total points claimed on the last page of the Point Tally Form.

14. When preparing the Point Tally Form, use General Standing Committee and Council names as they existed during the nominee’s participation. Points will be approved for service on committees, councils, offices, boards, etc., that have over time been phased out or replaced. Points will be approved by the Honors and Awards Committee as equal as possible to parallel office/point designations presently in use.

15. Receipt is acknowledged by the Honors and Awards Staff Liaison in writing to the nominator. If an acknowledgement is not received within ten (10) days, call 678/539-1128 or email cdevaughn@ashrae.org.
General Standing Committees and Councils include:

<table>
<thead>
<tr>
<th>Committee Name</th>
<th>Section Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accreditation Services</td>
<td>Handbook</td>
</tr>
<tr>
<td>Admissions and Advancement</td>
<td>Historical</td>
</tr>
<tr>
<td>Advocacy</td>
<td>Honors and Awards</td>
</tr>
<tr>
<td>ASHRAE Program</td>
<td>International</td>
</tr>
<tr>
<td>Board Planning</td>
<td>Joint Expo Policy</td>
</tr>
<tr>
<td>Board Policy for Standards</td>
<td>Journal/Insights</td>
</tr>
<tr>
<td>Building Energy Quotient</td>
<td>Meetings Arrangements</td>
</tr>
<tr>
<td>Certification</td>
<td>Members Council</td>
</tr>
<tr>
<td>Chapter Programs</td>
<td>Membership Promotion</td>
</tr>
<tr>
<td>Chapter Technology Transfer</td>
<td>Nominating</td>
</tr>
<tr>
<td>Chapter Regional</td>
<td>Planning</td>
</tr>
<tr>
<td>Charter and Bylaws</td>
<td>President-Elect Advisory</td>
</tr>
<tr>
<td>Conferences and Expositions</td>
<td>Professional Development</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>Publishing &amp; Education Council</td>
</tr>
<tr>
<td>Course Development</td>
<td>Publications</td>
</tr>
<tr>
<td>Electronic Communications</td>
<td>Refrigeration</td>
</tr>
<tr>
<td>Environmental Health</td>
<td>Regions Council</td>
</tr>
<tr>
<td>Finance</td>
<td>Research Administration</td>
</tr>
<tr>
<td>Foundation Trustees</td>
<td>Research Promotion</td>
</tr>
</tbody>
</table>

**CHECK LIST**

FOR COMPLETION OF THE DSA/ESA POINT TALLY FORM

An incomplete nomination will be returned without review by the Honors and Awards Committee.

☐ Is the nominee’s ASHRAE Biographical Record current?

☐ Is each point count listed on this Point Tally Form supported by the dates and activities detailed on the ASHRAE Biographical Record?

☐ Does the third column of the Point Tally Form list the section of the ASHRAE Biographical Record corresponding to each activity and date listed in the second column?

☐ Is a digital photo of the nominee provided with the nomination package?

☐ Points claimed in at least three (3) categories for the DSA?

☐ Are three (3) points claimed in at least three (3) categories for the ESA?

☐ If more than two (2) published papers are claimed in Categories E and F, are they listed in an attachment?

☐ Did you note that all Categories A-F have point maximums for several activities?

☐ Are the totals for each category and the total number of points claimed entered on the first and last pages of the Point Tally Form?

☐ Did you confirm that no activities were double counted or listed under more than one category?
   For instance, credit as a committee member and chair of that committee for the same dates should not be claimed.
NOMINATION AND POINT TALLY FORM  
For Distinguished Service Award (DSA)  
And Exceptional Service Award (ESA)  
Revised February 2018

Please review and follow the instructions for completion of this form.

<table>
<thead>
<tr>
<th>NAME OF NOMINEE:</th>
<th>REGION:</th>
<th>CHAPTER:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ADDRESS:  
PHONE:  
EMAIL:  

NOMINATION SUBMITTED BY:  
NAME:  
ADDRESS:  
PHONE:  
EMAIL:  

NOMINATION TYPE:  
☐ DSA NOMINATION (Minimum 15 points and points in at least 3 categories are required)  
☐ ESA NOMINATION (Minimum 45 points and 3 points in at least 3 categories are required)

SUMMARY OF POINTS: (Note Point Maximums for activities in all Categories A-F.)

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(SOCIETY OFFICERS/BOD/ REGIONAL POSITIONS/CHAPTER OFFICERS/CHAPTER BOARD OF GOVERNOR/ OTHER LISTED CHAPTER POSITIONS)</td>
</tr>
<tr>
<td>B</td>
<td>(SOCIETY GENERAL OR AD HOC COMMITTEES)</td>
</tr>
<tr>
<td>C</td>
<td>(STANDARD PROJECT COMMITTEES - SPC/SSPC/GPC/SGPC)</td>
</tr>
<tr>
<td>D</td>
<td>(TECHNICAL COMMITTEE (TC) AND TASK GROUP (TG)</td>
</tr>
<tr>
<td>E</td>
<td>(GENERAL ACTIVITIES)</td>
</tr>
<tr>
<td>F</td>
<td>(SPEAKERS/AUTHORS/ASHRAE PUBLISHED PAPERS)</td>
</tr>
</tbody>
</table>

TOTAL POINTS IN ALL CATEGORIES:
<table>
<thead>
<tr>
<th>CATEGORY A: SOCIETY OFFICERS/BOARD OF DIRECTORS/ REGIONAL POSITIONS/CHAPTER OFFICERS/ CHAPTER BOARD OF GOVERNORS/ OTHER LISTED CHAPTER POSITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SOCIETY POSITIONS</strong></td>
</tr>
<tr>
<td><strong>1.</strong> Society President</td>
</tr>
<tr>
<td><strong>2.</strong> Society President Elect</td>
</tr>
<tr>
<td><strong>3.</strong> Society Vice President or Treasurer</td>
</tr>
<tr>
<td><strong>4.</strong> Society Board of Directors:</td>
</tr>
<tr>
<td>a. Director and Regional Chairman</td>
</tr>
<tr>
<td>b. Director-at-Large</td>
</tr>
<tr>
<td><strong>5.</strong> Assistant Regional Chairman</td>
</tr>
<tr>
<td><strong>6.</strong> Regional Members Council Representative</td>
</tr>
<tr>
<td><strong>SUBTOTAL (1-5)</strong></td>
</tr>
<tr>
<td><strong>CHAPTER POSITIONS</strong> - For items 7-12, a maximum of 3 points may be claimed for all chapter officer, Board of Governor, and other listed chapter positions (except Chapter President); Points for Regional Vice-Chair should be entered in Category B4</td>
</tr>
<tr>
<td><strong>7.</strong> Chapter President</td>
</tr>
<tr>
<td><strong>8.</strong> Chapter Officers (President-Elect, VP, Secretary, Treasurer)</td>
</tr>
<tr>
<td><strong>9.</strong> Chapter Board of Governors</td>
</tr>
<tr>
<td><strong>10.</strong> Student Branch Advisor</td>
</tr>
<tr>
<td><strong>11.</strong> Chapter Historian</td>
</tr>
<tr>
<td><strong>12.</strong> Chapter Webmaster</td>
</tr>
<tr>
<td><strong>13.</strong> Chapter Committee Chair</td>
</tr>
<tr>
<td><strong>3 points maximum plus points for service as Chapter President</strong></td>
</tr>
<tr>
<td><strong>SUBTOTAL (6-12)</strong></td>
</tr>
<tr>
<td><strong>REGIONAL POSITIONS</strong> - For items 13 – 15, a maximum of 3 points may be claimed</td>
</tr>
<tr>
<td><strong>14.</strong> Regional Refrigeration Chair</td>
</tr>
<tr>
<td><strong>15.</strong> Regional Historian</td>
</tr>
<tr>
<td><strong>16.</strong> Regional Webmaster</td>
</tr>
<tr>
<td><strong>17.</strong> Regional Treasurer</td>
</tr>
<tr>
<td><strong>3 points maximum</strong></td>
</tr>
<tr>
<td><strong>SUBTOTAL (13-16)</strong></td>
</tr>
<tr>
<td><strong>TOTAL POINTS FOR CATEGORY A</strong></td>
</tr>
</tbody>
</table>
Note: There is no point limit in this category except for an Ad Hoc Committee.

Service on phased-out committees may be claimed provided adequate detail is given. The ASHRAE Biographical Record must reflect this activity. If you have served as a committee chair or subcommittee chair, please list points for the years you served in lieu of, not in addition to, the points you should list as a committee member. List separate entries for Chair and Subcommittee Chair service on your ASHRAE biographical record.

<table>
<thead>
<tr>
<th>ACTIVITY/DATES</th>
<th>ASHRAE Bio Section</th>
<th>POINTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTIVITY/DATES</td>
<td>Society Year(s)</td>
<td>POINTS</td>
<td>TOTAL</td>
</tr>
<tr>
<td>1. Councils: Members, Publishing &amp; Education, and Technology</td>
<td>(Only Voting members, including Vice-Chairs should claim points here. BOD Officer nor non-voting Members should not claim points)</td>
<td>1 per year</td>
<td></td>
</tr>
<tr>
<td>2. General Standing Committee Chairs</td>
<td>(BOD Officer or Member should not claim points)</td>
<td>2 per year</td>
<td></td>
</tr>
<tr>
<td>3. General Standing Vice Chairs or Subcommittee Chairs</td>
<td>(No points if also serving as the General Committee Chair)</td>
<td>1½ per year</td>
<td></td>
</tr>
<tr>
<td>4. General Standing Committee Member</td>
<td>(Regional Vice-Chair points should be entered here. BOD Officer or BOD Member should not claim points)</td>
<td>1 per year</td>
<td></td>
</tr>
<tr>
<td>5. Nominating Committee Alternate</td>
<td>(Nominating Committee Members and Vice-Chairs should claim points in B4)</td>
<td>½ per year</td>
<td></td>
</tr>
<tr>
<td>6. Consultant (unpaid) (Give details)</td>
<td></td>
<td>½ per year</td>
<td></td>
</tr>
<tr>
<td>7. Presidential Ad Hoc Committee</td>
<td>Maximum 7 points</td>
<td>List committee name and years served:</td>
<td></td>
</tr>
<tr>
<td>a. Chair</td>
<td>2 per year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Vice-Chair or Member</td>
<td>½ per year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Region -At-Large Sub-Region Chair</td>
<td></td>
<td>2 per year</td>
<td></td>
</tr>
<tr>
<td>9. Research Advisory Panel Chair and/or Position Document Committee Chair</td>
<td>Maximum 3 points</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Research Advisory Panel Member and/or Position Document Committee Member</td>
<td>Maximum 3 points</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL POINTS FOR CATEGORY B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are point limits in this category Ad Hoc Committees, Position Document Committees and the Research Advisory Panel.
## CATEGORY C: STANDARD PROJECT COMMITTEES (SPC/SSPC/GPC/SGPC/TAG)

*The maximum in this category is 7 points. List committee name and years served.*

<table>
<thead>
<tr>
<th>ACTIVITY/DATES</th>
<th>ASHRAE Bio Section</th>
<th>POINTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Standard Project Committee Chair</strong>&lt;br&gt;(SPC/SSPC/GPC/SGPC/TAG)</td>
<td></td>
<td>1 per year - 4 per project maximum</td>
<td></td>
</tr>
<tr>
<td><em>(Points for Chair are in addition to points for member or Vice-Chair)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. SPC/SSPC/GPC/SGPC/TAG Member or Vice-Chair</strong></td>
<td></td>
<td>1 per year – 3 per project maximum</td>
<td></td>
</tr>
</tbody>
</table>

*The maximum in this category is 7 points.*

## CATEGORY D: TECHNICAL COMMITTEE (TC) 10 Points Maximum per Committee

**TASK GROUP (TG)** 3 Points per TG or 7 Points Total

*The maximum in this category is 10 points. List TC/TG name and years served.*

<table>
<thead>
<tr>
<th>ACTIVITY/DATES</th>
<th>ASHRAE Bio Section</th>
<th>POINTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. TC/TG Chair or Secretary</strong></td>
<td></td>
<td>1 per year</td>
<td></td>
</tr>
<tr>
<td><strong>2. Vice Chair or Member</strong></td>
<td></td>
<td>½ per year</td>
<td></td>
</tr>
<tr>
<td><strong>3. Corresponding Member</strong></td>
<td></td>
<td>¼ per year</td>
<td></td>
</tr>
</tbody>
</table>

**HANDBOOK ACTIVITY: Author/Reviser (Maximum of 7 points may be claimed)**

4. Handbook – New Chapter<br>Principal author (give specific details).<br>2 per chapter

5. Handbook – Chapter Reviser<br>½ per chapter

*The maximum in this category is 10 points.*
### CATEGORY E: GENERAL ACTIVITIES

List name, date, location, and details for each activity

<table>
<thead>
<tr>
<th>ACTIVITY/DATES</th>
<th>ASHRAE Bio Section</th>
<th>POINTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Society Year(s)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Technical Paper Session Chair
   - ¼ per session
2. Seminar Chair
   - ½ per seminar
3. Forum Moderator
   - ¼ per forum

4. ASHRAE Annual & Winter Meeting Chair
   - 2 per meeting
   - 1 per meeting
Co-chair
   - 1 per meeting
Subcommittee Chair
   - 2 per meeting
Technical Conference Chair

5. CRC or other ASHRAE-sponsored Conferences Chair
   - 2 per meeting
Co-Chair
   - 1 per meeting
Vice Chair
   - ½ per meeting
Subcommittee Chair

6. Intersociety Assignment
   a) Representing ASHRAE on Conference Committee
      - 1 per conference
   b) Representing ASHRAE (unpaid on Continuing Assignment (ANSI, ABET, ICC)
      - 2 per year
   c) Representing ASHRAE (for fee or expenses – non-Staff)
      - 1 per year

7. International Services
   (Maximum 7 points for the sum of a, b, and c in this sub-category)
   a) Chair or co-chair of ASHRAE international co-sponsored conference
      - 1 per conference
   b) Technical paper presented at ASHRAE co-sponsored conference*
      - ½ per paper
   c) ASHRAE Associate Society Alliance representative
      - ½ per year

*Use an additional sheet if more than 2 papers are being claimed for points

8. ASHRAE Foundation Trustee
   a) Chair
      - 2 per year
   b) Officer/Member
      - 1 per year

9. HVAC&R Research Journal
   a) Editor
      - 2 per year
   b) Associate Editor
      - 1 per year

A maximum 7 points may be claimed for the sum of a, b, and c in E-7

TOTAL POINTS FOR CATEGORY E
### CATEGORY F: Publications and Presentations – Society Annual/Winter Meeting or ASHRAE - Sponsored Conference or Special Presentations

Give details, i.e., when paper was delivered, title and page numbers, where paper was published or in what ASHRAE Transactions edition it was published and the page numbers. Papers in the Transactions qualify for points for each one published. **Use additional sheet if more than two (2) papers are being claimed for points. No points may be claimed for paid lectures or services.**

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<th>ACTIVITY/DATES</th>
<th>ASHRAE Bio Section</th>
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<td>6. Design Manual &amp; Guide – New Chapter Principal Author (Give Specific Details)</td>
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<td>7. Design Manual/Guide – Chapter Reviser</td>
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**Note: Points in Category F are limited to the total of Categories A through E**

**TOTAL POINTS FOR CATEGORY F**

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**ENTER TOTAL POINTS IN ALL CATEGORIES A through F**

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**ESA/DSA Nominations are due at ASHRAE Headquarters May 1**

The ESA/DSA Point Tally Form, a current ASHRAE Biographical Record, and digital photo of the nominee must be provided to ASHRAE electronically. Email the completed nomination in Adobe pdf format to: cdevaughn@ashrae.org

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Honors and Awards Committee

Reference Manual (February 2019)
APPENDIX M: ASHRAE HALL OF FAME NOMINATION FORM

HALL OF FAME NOMINATION FORM

Hall of Fame Nominations are due in ASHRAE headquarters December 1.

- Name of Nominee:
- Date and Place of Birth:
- Last Occupation or Profession:
- Significant Positions Held:

- List outstanding contributions of the growth of ASHRAE related technology. Include other pertinent information that clearly indicates the nominee’s outstanding contributions in order of significance. Note: Attach additional sheets, if necessary.

- Other Type of Activity:

- Honors and/or Recognitions:

- Publications

- Professional Memberships (include offices held and committee involvement)

- Criteria for ASHRAE Hall of Fame:
  - Must have been an ASHRAE Member (any grade) or a member of a predecessor society.
  - Must have made milestone contributions to the growth of ASHRAE-related technology and distinction in the Society. A milestone contribution is an innovative technological advancement in the industry and/or service to ASHRAE resulting in improved stature and leadership in the Society. Evidence of distinction in these areas may be accomplished through invention, entrepreneurial activity, research, publishing, outstanding academic, Society or engineering leadership, or a combination thereof.
  - Must have shown evidence of distinction in the Society, either technically or academically
  - Must be deceased.
  - The personality and popularity of the candidate and evidence of Society awards shall be considered only in the context of evaluating the contribution which shaped the industry.

* * * A biography and photo of the nominee are required with the nomination. * * *

* * *
• Nomination submitted by:

   Name:
   Address:
   Phone:
   Email:

• Family Member/Representative to accept award at ASHRAE meeting presentation:

   Name:
   Address:
   Phone:
   Email:

HALL OF FAME NOMINATIONS ARE DUE AT ASHRAE HEADQUARTERS DECEMBER 1

• Please return to:

   ASHRAE
   Attn: Honors and Awards Committee
   1791 Tullie Circle, N. E.
   Atlanta, GA 30329
   Tel: (678) 539-1128
   Fax (678) 539-2128
   Email: cdevaughn@ashrae.org

Revised January 20, 2014
APPENDIX N: CHECKLIST FOR WRITE-UPS

F. PAUL ANDERSON AWARD
This is considered to be ASHRAE’S highest award. The following information shall be included:

2. Outline broad based activity of outstanding value to the industry such as consulting, contracting, engineering, design, and outstanding work or service in any specific field(s) of the Society.
3. A full-page letter of recommendation to the Board of Directors. Sample write-up is included as Appendix M-1 in the H&A Reference Manual.

ASHRAE HALL OF FAME
The following information shall be included:

1. Milestone contributions to the growth of ASHRAE related technology.
2. Evidence of distinction within the society, either technically or academically.
3. A listing of the outstanding contributions which have advanced ASHRAE related technology.

ASHRAE PIONEERS OF THE INDUSTRY
The following information shall be included:

1. Milestone contributions to the growth of air conditioning, heating, refrigeration and ventilation and benefits to the industry.
2. Evidence of distinction, either technically or academically.
3. A listing of the outstanding contributions which have advanced the heating, refrigeration, air conditioning and ventilation industry.
4. A full-page letter of recommendation to the Board of Directors.

HONORARY MEMBER
The following information shall be included:

1. The recipient should be a person of preeminent professional distinction.
2. The candidate shall not be a member of the Society.
3. Write-up should include reason for the selection, outlining works of distinction in any field of endeavor, not necessarily ASHRAE-related.
4. A full-page letter of recommendation to the Board of Directors. Sample write-up is included as Appendix M-3 in the H&A Reference Manual.

LOUISE AND BILL HOLIDAY DISTINGUISHED FELLOW AWARD
The following information shall be included:

1. Candidate must be an ASHRAE Fellow.
2. Evidence of continued preeminence in engineering or research work. Indicate type of work and number of years involved to show continuity.
3. A full-page letter of recommendation to the Board of Directors. Sample write-up is included as Appendix M-4 in the H&A Reference Manual.
**FELLOW**

The following information shall be included:

2. A full-page letter of recommendation to the Board of Directors, outlining activities reflecting “unusual distinction” of candidate. Sample write-up is included as Appendix M-5 in the H&A Reference Manual.

**ANDREW T. BOGGS SERVICE AWARD**

The following information shall be included:

1. Candidate must be a recipient of the Exceptional Service Award.
2. The award is for continuing service to ASHRAE above and beyond that required for the Exceptional Service Award. Service should be unselfish, dedicated and extend over a considerable length of time.
3. A full-page letter of recommendation to the Board of Directors. Sample write-up is included as Appendix M-6 in the H&A Reference Manual.

**ASHRAE AWARD FOR DISTINGUISHED PUBLIC SERVICE**

The following information shall be included:

1. Recipient must be a member recognized for distinguished public service.
2. A detailed statement outlining the public service rendered should be provided.
3. A full-page letter of recommendation to the Board of Directors. Sample write-up is included as Appendix M-7 in the H&A Reference Manual.
APPENDIX N-1: SAMPLE WRITE-UP FOR F. PAUL ANDERSON

April 15, 1999

TO: ASHRAE Board of Directors
FROM: ASHRAE Honors and Awards Committee
SUBJECT: PROFESSOR ARTHUR E. BERGLES, NOMINEE FOR F. PAUL ANDERSON AWARD

Professor Arthur E. Bergles is an ASHRAE Fellow, active member and respected professor of mechanical engineering from the Department of Mechanical Engineering, Rensselaer Polytechnic Institute, New York. Professor Bergles is a unique researcher and is highly recognized internationally for his work in the field of heat and mass transfer. He is a leading international personality in this field in general, and in particular has performed outstanding work to advance science and technology with respect to boiling and condensation relationships to heat transfer; as well as methods on enhancement of heat transfer.

Professor Bergles’ professional career began as Associate Professor at MIT and Georgia Institute of Technology in teaching and research, Department Chairman and Professor at Iowa State University (teaching and research for 14 years), an as Professor of Engineering and Dean of Engineering for Rensselaer Institute since 1986.

He has published very widely and has been a consultant to numerous industrial companies. He has contributed to all major handbooks, including ASHRAE’s Handbook on Fundamentals and has served on the editorial board of many journals.

He has given approximately 300 lectures at conferences and academic center throughout the world. A widely published author, he has written 22 book, 313 papers, 130 articles and reports. Some of these articles and papers included 27 ASHRAE Transactions papers, two ASHRAE Journal articles, one International Journal of HVAC&R Research article, and one International Journal of Refrigeration. He holds one patent and has sponsored 46 research programs in academic and industrial laboratories including six ASHRAE projects.

His technical credentials and academic excellence is documented by membership in the U.S. National Academy of Sciences. He has received more than 25 other national and international medals, honors and awards. In 1997, he was awarded Doctor Honoris Causa of the University of Porto. In 1998, he received the A.V. Luikov Medal, the highest award of the International Center for Heat and Mass Transfer. His work has been of immense importance in the development in theory, applications and engineering, particularly in the HVAC&R engineering field and sciences.

The Honors and Awards Committee unanimously recommends that Professor Arthur E. Bergles be awarded the F. Paul Anderson Award.
APPENDIX N-2: SAMPLE WRITE-UP FOR ASHRAE HALL OF FAME

November 12, 2001

TO: ASHRAE Board of Directors
FROM: Honors and Awards Committee
SUBJECT: MILTON W. GARLAND, NOMINEE FOR ASHRAE HALL OF FAME

Milton Garland was born in Harrisburg, Pennsylvania in 1895 and was called home in the year 2000 at the age of 104. Mr. Garland received a BSME in 1920 and an Honorary Doctorate of Engineering degree in 1995 from Worcester Polytechnic Institute. He earned a P.E. license in early 1930 and was a Life Member of NSPE.

Mr. Garland joined ASHRAE in 1946 and became a Life Member in 1960. He received Fellow/Life Member grade of membership and the Distinguished Service Award in 1970. Mr. Garland was the 1988 recipient of the Paul Anderson Award and was presented with the Louise and Bill Holiday Distinguished Fellow Award in 1995.

Mr. Garland was named a pioneer in technology by ASHRAE during the Society’s Centennial Celebration. He was an inventor and author, affectionately know as “Mr. Refrigeration” by all those who knew him, and the oldest active engineer, continuing to work up to one month prior to his passing. In 1998, at the age of 102, Milton Garland was honored by the United States Senate as the nation’s oldest worker in a ceremony held at the White House Visitor’s Center.

Mr. Garland provided the initial $10,000.00 contribution to establish the Region III Milton W. Garland/Jose A. Reig Student Challenge Award in 1991. The York-Frick Company provided a $10,000.00 endowment fund and Region III provided $2,300.00 to establish the Society’s Milton W. Garland Refrigeration Award in 1989. The York-Frick Company also provides annual scholarships to deserving children of Frick family employees in his memory.

During his 80-year career with the Frick Company and York-Frick, Mr. Garland made significant contributions to this profession. Some of his most notable achievements were the development of ice-skating rink refrigeration in 1936 that brought the sport indoors and the development of the first successful machinery for making dry ice. He provided engineered systems to cool concrete mixture for the construction of the Hoover Dam, which otherwise may not have been constructed. Mr. Garland developed cold storage facilities to preserve and transport food for troops in World War II. He designed an all-weather laboratory to test aircraft engines to assist the atomic energy program and developed a process to make synthetic rubber.

During his career, Mr. Garland received 41 patents for refrigeration devices and processes and also published many papers and articles from 1952 through 1980. He was an active member of ASHRAE, NSPE, ASME, and IIAR. Mr. Garland was judged by his peers at the International Institute of Ammonia Refrigeration and was honored as the first recipient of the Andy Ammonia Award in 1996 for his paper entitled “The Influence of Vapor Pressure in the Condensing Process of the Ammonia Refrigeration Cycle.”

In his retirement years, Mr. Garland organized a training school for Frick’s refrigeration engineers and wrote an engineering design manual. He called it “Industrial Refrigeration 102” in honor of his age at the date of publication. In addition to his dedication to the engineering profession, Mr. Garland still found time to participate in community and church activities. He also served in the U.S. Navy during World War I.

The achievements of this great man are without parallel and far exceed the award requirements. The Honors and Awards Committee unanimously recommends Milton W. Garland for induction into the ASHRAE Hall of Fame.
APPENDIX N-3: SAMPLE WRITE-UP FOR HONORARY MEMBER

April 26, 1994

TO: Board of Directors, ASHRAE

FROM: ASHRAE Honors and Awards Committee

SUBJECT: HENRY VOGT HEUSER, NOMINEE FOR HONORARY MEMBER

Henry Heuser received his BSME degree from Purdue University in 1936 when he joined the Henry Vogt Machine Company in Louisville, KY. He served as President and Director from 1956 to 1984 and as Chairman from 1956 to 1984 and as Chairman of the Board from 1984 to 1991.

Mr. Heuser was very active in ASME but a significant portion of his company’s technology deals with refrigeration and ice making.

Henry has been extremely active in the community as well as serving on many directorates, such as, Louisville Labor-Management Committee, University of Louisville Board of Overseers, KY Southern College, Louisville Chamber of Commerce, Associated Industries of Kentucky, Nat’l Association of Manufacturers, Children’s Hospital and Louisville Development Committee.

He is also a member of many civic organizations including Rotary, Pendennis, Filson, Louisville Country Club, and the Newcomer Society. He is also an Elder and Trustee of the Highland Presbyterian Church.

From 1967 to 1991, he served on twenty-six boards or committees varying from universities to city mayor’s planning and control committees.

The Honors and Awards Committee unanimously recommends Henry Vogt Heuser be approved as an Honorary Member.
December 1, 1995

TO: ASHRAE Board of Directors

FROM: ASHRAE Honors and Award Committee

SUBJECT: Harold E. Straub, Nominee for Louise and Bill Holladay Distinguished Fellow Award

Harold E. Straub was born in Carlinville, Illinois on October 3, 1919. He graduated from the University of Missouri in 1949 with a B.S. Degree in Mechanical Engineering. In 1952 he received his Master of Science Degree in Mechanical Engineering from the University of Illinois.

Following his graduation, he taught Heat-Power courses and conducted research at the University of Illinois. In 1955 Harold’s feelings that an Engineer “should make thing work, not just theorize,” prompted him to leave academia for industry and join Titus Manufacturing Corporation. He has remained with this organization, starting as Chief Research Engineer, and progressing to his current position of Vice President of Production Engineering and Chief Engineer. In 1964 he was recognized by the University of Missouri, School of Mines and Metallurgy with an Honorary Degree of Mechanical Engineering.

Due to his experience and knowledge of the theories of air distribution, he has been a prominent figure in many notable construction projects. An example was during the design of the Astrodome in Houston, Texas where he was asked to develop the conceptual air distribution system.

Mr. Straub has mad many contributions to our industry, including 10 patents, 28 published articles. The Space Air Diffusion chapter of the Fundamentals Handbook is based extensively on Mr. Straub’s research and he served as a reviewed/author since 1062. He has been on the ASHRAE Standards Committee, numerous Technical Committees, Research Projects as well as a member of the Monitoring Committee for RP 703, 705, and 755. In addition, he has made significant contributions to the International Standards Organization, the Air Diffuser Council, and the American Refrigeration Institute.

Mr. Straub became a Member of ASHVE in 1950 an in 1973 received the Distinguished Service Award. In January 1984 he was elevated to the grade of Fellow and became a Life Member.

The Honors and Awards Committee unanimously endorses the nomination of Harold E. Straub for the Louise and Bill Holladay Distinguished Fellow Award.
April 15, 1999

TO: ASHRAE BOARD of Directors

FROM: ASHRAE Honors and Awards Committee

SUBJECT: WINFIELD L. (ROY) KELLEY, NOMINEE FOR FELLOW

Winfield Kelley graduated from The University of Florida with a B.S. Degree. His first work after graduation was with Honeywell Corporation as a sales engineer. Mr. Kelley served three years with the U.S. Army, where he attended the U.S. Army School of Engineering. He then spent seven years as a principal for a mechanical contracting company, doing air-conditioning, sheet metal, and plumbing work.

Mr. Kelley was a pioneer in variable air volume air distribution, virtually unknown in the 1960’s. He then entered the manufacturing business, where he designed, manufactured, and patented many innovative products for the distribution and delivery of air. He invented and manufactured the fan-powered box, a new concept in air delivery; at the same time he was reorganizing Warren Manufacturing Company, which became Warren Technologies.

While the company continued to manufacture and sell electric duct heaters, Mr. Kelley headed a four-man design team charged with developing new products. Many of his patented designs are still used today, and would be described as “indoor environmental solutions.”

The Miami Herald recognized Warren Technologies as the “Small Business of the Year” in 1990. Both HPAC and Contracting Business magazines presented Warren Technologies, under Mr. Kelley’s brilliant guidance with “The Innovative Product Award” as voted by their readers. Some of the most impressive buildings in the USA, Hong Kong, and Japan, including the Joe Robbie Stadium in Miami, have been fitted with Mr. Kelley’s innovative devices.

Mr. Kelley is a 30-year member of ASHRAE. He has published seven articles and is a noted speaker on IAQ, VAV and individual room temperature controls. He holds 15 patents in the U.S. and foreign countries for various HAC products. His mission is to produce products that have real value for health, comfort and efficiency.

The Honors and Awards Committee unanimously recommends Winfield L. (Roy) Kelley for advancement to the grade of ASHRAE Fellow.
TO: Board of Directors, ASHRAE

FROM: ASHRAE Honors and Awards Committee

SUBJECT: PRESTON E. McNALL, Jr., NOMINEE FOR ANDREW T. BOGGS AWARD

Mr. McNall received the ASHRAE Distinguished Service Award in 1972. Since that time, he has continued being ever active in serving on ASHRAE Committees, the Board of Directors, ASHRAE Vice-President, and has continued his activity in writing papers on ASHRAE related subjects. The Honors and Awards Committee feels that Mr. McNall’s extended, notable service to ASHRAE, as summarized below, indeed meets the criteria for the A.T. Boggs Service Award.

Following are principal ASHRAE activities of Preston McNall subsequent to his receiving the Distinguished Service Award: R&T Committee, 5 years; Metric Committee, Chairman 3 years; Standards Committee, 3 years; Environmental Health Committee, 4 years; Director at Large; Vice President, 2 years during which he also served as Chairman of Member Council; Presidential Ad Hoc Committee on Legionnaire’s Disease; Chapter 7, Fundamental Handbook, 4 years; and Presidential Committee on Environment, 2 years.

In addition to serving in the above listed capacities, Mr. McNall was author or co-author of some 25 articles and papers, since 1972, dealing with the technology embraced by ASHRAE.

The Honors and Awards Committee is proud to unanimously recommend Preston E. McNall for receipt of the Andrew T. Boggs Service Award.
April 15, 1999

TO: ASHRAE Board of Directors
FROM: ASHRAE Honors and Awards Committee
SUBJECT: JERRY G. BARTOS, NOMINEE FOR THE ASHRAE AWARD FOR DISTINGUISHED PUBLIC SERVICE

Jerry Bartos has provided exemplary service to the public over a period of 30 years that established him as a role model for engineers of all disciplines. His record of service to the local, state, national, and international communities indicates he has definitely improved the public image of engineers.

Jerry Bartos has always believed in a strong commitment to business and civic affairs of his community. He has served the community with dedication. His leadership roles are numerous and the following is only a partial list:

A Beautiful Clean Dallas – President 1975
North Dallas Chamber of Commerce – President 1975-76
U.S. Chamber of Commerce – Regional Chair of Small Business, 1978-79
White House Conference on Small Business Chair – Dallas Delegate 1980
Greater Dallas Planning Council – President 1984-86

Mr. Bartos has served on dozens of committees and boards. Some are listed below:

Texas State Fair Pan-American Committee
Texas Safety Association, Board of Directors
Big Brother/Big Sisters of America, National Board
North Texas Leadership Council, Board of Directors
National Trust for Historic Preservation
Dallas Council on World Affairs

Jerry Bartos has been very active in local, state and national politics. He has served as a member of the Dallas County Republican Men’s Club. He has been a frequent delegate to Republican Party Conventions, and served as co-chair of one of the host committees for the 1985 National Republican Party Convention in Dallas.

He has also been elected to serve his community in the following roles:

Dallas Independent School District, Board Member – 1979-81
Dallas City Council, Member – 1987-93

In the early 1990’s Mr. Bartos served as the chair of a delegation representing the city of Dallas to create the Dallas/Brno (Moravia, Czechoslovakia) sister-city relationship. He led this delegation to Brno to establish this international partnership.

Because of Mr. Bartos’ dedicated and continuous endeavors in community civic affairs, the Honors and Awards Committee unanimously recommends Jerry G. Bartos for the ASHRAE Award for Distinguished Public Service.
APPENDIX N-8: SAMPLE WRITE-UP FOR ASHRAE PIONEERS OF THE INDUSTRY
AWARD

February 2012

TO: Board of Directors, ASHRAE

FROM: ASHRAE Honors and Awards Committee

SUBJECT: WILLIAM E. FONTAINE, NOMINEE FOR THE ASHRAE PIONEERS OF THE INDUSTRY AWARD

William Ellsworth Fontaine was born in Chicago, Illinois on May 5, 1905, and died on February 26, 1993 in Lafayette, Indiana, after having served as Distinguished Herrick Professor of Mechanical Engineering, and Founding Director or the Ray W. Herrick Laboratories at Purdue University.

Professor Fontaine’s major contribution to the HVAC&R Industry was establishing the Ray W. Herrick Laboratories at Purdue University. Its successes have had a great influence on expanding industry support of graduate student research that in the 1950s was usually limited to supporting fellowships. Professor Fontaine recognized that engineering graduate students were getting a more scientifically based education and were becoming better able to contribute to the Industry’s specific research needs related to their specific products. In other words, he was able to convince companies to enter contract relationships with the Herrick Laboratories using graduate students to work on their specific research problems under professorial supervision. He successfully found ways to protect sponsors’ proprietary interests without compromising students’ needs to write and publish their theses. This was a completely new paradigm for HVAC&R related and cooperative research between industry and academia- and quite a shift from the typical aerospace and Department of Defense research of the 1950s. The way that the Herrick Laboratories under Professor Fontaine’s leadership handled such issues became a role model for the way industry and many other universities do directed research.

The laboratories grew steadily under Professor Fontaine’s leadership, and continue to do so since his retirement. More than 700 students have graduated from the laboratories since Fontaine’s dream became a reality; close to half of them were specifically relevant for the HVAC&R industry. Amongst these graduates were some notable leaders in the industry: Will Stoecker (University of Illinois); Carl Johnson (past vice-president at RANCO Controls), Terry Manon (past vice-president of the Trane Company) Edward Eisele (past vice-president of Whirlpool), Richard Erth (vice-president at Borg) and Ken Cooper (Poolpak Int., currently Director of Special Projects) ; as well as more recent graduates such as Anthony Jacobi (University of Illinois), Bill Murphy (University of Kentucky), and Dennis O’Neal (Texas A&M), all heavily involved in ASHRAE and part of Bill Fontaine’s legacy.

In the form of summary: Professor Fontaine’s milestone contribution was establishing the Ray W. Herrick Laboratories at Purdue University; the first of its kind. Bill Fontaine’s unique and pace-setting goal was to increase and enhance engineering research for the good of the HVAC&R Industry using the research of graduate students directed by their major professors and with cooperation from the engineering personnel who were employed by the sponsoring organizations. He did this maintaining protection of proprietary interests of the sponsors and the academic need to publish the theses written by the students. The outcome has been tangible advancement of the arts and sciences of HVAC&R. Based on these accomplishments the Honors and Awards Committee unanimously recommends William E. Fontaine’s recognition as an ASHRAE Pioneer of the Industry.
APPENDIX O: BIOGRAPHIES FOR NAMED AWARDS

ANDREW T. BOGGS SERVICE AWARD

A native of Pennsylvania, Andrew Boggs, III, grew up in New Jersey. Following high school, he attended Norwich University, the oldest private military college in the United States. World War II interrupted his studies at Norwich. After serving during the war as a tank commander in Europe for which he received the Belgian Military Cross, he returned to Norwich and graduated with a degree in chemistry. He remained in the Army Reserve and retired as a major in 1965.

Mr. Boggs’s business career started when, as a teenager, he went to work for the Edison Electric Institute in New York. After graduation from college, he returned to EEI where his duties included collection and correlation of all research material for the preparation of reports on heat pump technology and air conditioning practices and theories.

Mr. Boggs worked for EEI until 1955 when he became ASRE technical secretary. He assisted ASRE’s Research, Standards, Program and General Technical Committees. Much of his ASRE work increased American involvement in the International Organization for Standardization (ISO). He also was managing editor of the ASRE Data Book and answered all technical inquiries. During his professional career he authored several papers, and is listed in “Who’s Who in Engineering.”

After ASRE’s merger with the American Society of Heating and Air-Conditioning Engineers in 1959, he took over the Membership Department at the Worth Street office (ASHAE’s former headquarters) while continuing to manage the Technical Department at the Fifth Avenue office (ASRE’s former headquarters). Mr. Boggs was named ASHRAE’s associate secretary in 1961, and in 1967, he became ASHRAE's executive secretary, the chief staff position.

Widely respected among his peers, Mr. Boggs has long been active in the Council of Engineering and Scientific Society Executives. He served as its president in 1981-82. He also has been president of the Alumni Association and a member of the Board of Trustees of Norwich University, was elected a Fellow of his University, and in 1977, was given Norwich's Outstanding Alumnus Award.

He was named an ASHRAE Fellow in 1979 and considered it one of the greatest honors bestowed upon him. Mr. has represented ASHRAE countless times, encouraged members to become active in the industry and championed the importance of ASHRAE is important to the well being of humanity.

When Mr. Boggs retired in 1985, he was named an ASHRAE Honorary Member and Executive Vice President Emeritus. In 2001, Mr. Boggs received the Distinguished Fifty-Year Member Award.

The Andrew T. Boggs Service Award was established in 1986 to recognize a past recipient of the Exceptional Service Award for continuing unselfish, dedicated, and distinguished work on behalf of the Society. The award honors Andrew T. Boggs, ASHRAE Executive Vice President Emeritus, for his 30 years of outstanding service and leadership. The award consists of a plaque with a medallion.
Colonel Field, as he was called by his friends and admirers, was born in 1889 in Jamestown, New York. In 1909, he received a B.S. degree from New York University and three years later an M.E. degree from Cornell University. In 1914, he was awarded an M.S. degree in electrical engineering from Union College, and later, studied chemical engineering at Brooklyn Polytechnic Institute.

Following his graduation from Union College, he joined General Electric Company’s Test Program, working for a time under Dr. Steinmetz in the Protective Apparatus Laboratory. Here he developed several inventories including the Oxide Film Arrestor. From 1914-15, he was in private practice as a consulting engineer until associating as Chief Engineer with Standard Aniline Products Company from 1915-17.

From 1917-19, he served in the U.S. Army, Ordnance Department in various capacities from Major to Acting Chief of the Explosives and Loading Section, Inspection Division. Following World War I, he joined National Aniline and Chemical Company as Engineering Manager in charge of all engineering including construction, maintenance, power plant, appraisal and engineering research.

From 1923 to 1942, Colonel Field was a Vice President, Director and Secretary of the Brillo Manufacturing Company, during which time his invention of the automatic single pass machine for the production of steel wool completely revolutionized the industry. One of his machines did the work of 250 machines of the type superseded. By a constant program for the development of new products, he was able to avoid any appreciable technological unemployment, actually increasing the total number of employees.

In 1938, Colonel Field was President of ASRE. He was first elected a Director of the Society in 1932 and remained on the Board for 12 years. He was a frequent contributor to Refrigerating Engineering, and was a contributing author of a chapter in the Refrigerating Data Book.

Concurrently, during this period, Colonel Field was President of the Flakice Corporation and introduced Flakice frozen water ribbons, helping to make the small ice industry of today possible. He returned to active duty in the U.S. Army in 1942 as Assistant Director of Safety, Office of Chief of Ordnance with the rank of Colonel.

Affiliated with ASME since 1915, he was elected Fellow in 1938. He also served as Fellow of the American Institute of Electrical Engineers, and a Past-President of ASRE, as well as numerous other engineering societies and fraternal bodies.

Colonel Field received the U.S. Legion of Merit in 1946 for his work in safety methods in the loading of ammunition. His manual for investigators, “The Study of Missiles Resulting from Accidental Explosions,” published in 1947, was later adapted, and is still in use by the U.S. Atomic Energy Commission Division of Operational Safety.

In 1953, Colonel Field was awarded the ASME Medal for “his high engineering skills and inventions which established and expanded industries and made invaluable contributions to improved designs and production techniques in many fields.” He was also named Honorary Member and became a Fellow of ASME. He was named an Honorary Member of ASHRAE in 1961, and in 1968 received the ASHRAE F. Paul Anderson Award.

Always conscious of his responsibilities as an engineer, Colonel Field devoted a great deal of his life to active participation in engineering societies and other organizations winning almost all honors and awards. His many patents and published articles have contributed greatly to the progress of the industries he served and to the welfare of the general public.

Colonel Field passed away September 20, 1972 at the age of 83.

The Crosby Field award was established in 1973. This award is for the highest rated paper presented at a Technical Session or Symposium for the Society year. The award consists of a $750 honorarium and plaque.
DAN MILLS CHAPTER PROGRAMS AWARD

Daniel M. Mills was born September 27, 1908 in Hanover, Indiana. He attended Madison Indiana high school, graduating with a diploma in 1928, and Purdue University graduating with a B.S. in chemical engineering in 1933.

In 1936, Mr. Mills began his career with Surface Combustion of Toledo as a sales engineer, continuing until 1940. He was then employed with F. J. Evans Engineering as Vice President from 1940-1965. At that time, he founded his own company of D. M. Mills and Associates serving as President, and in 1991 became Chairman of the Board of Mills-Wilson-George, Inc., serving until his death.

Mr. Mills served on numerous ASHRAE committees including the Chapter Delegates Committee, the Nominating Committee, and as the Chair of the Life Members Club. He also held many chapter offices with the Houston and Memphis Chapters.

Mr. Mills was a member of the Memphis Joint Engineers Society having served as Chair, and a member of the advisory councils for numerous manufacturers such as General Controls and Peabody and Reznor.

Mr. Mills received the Distinguished Service Award in 1966, became a Life Member in 1972, and was awarded the grade of Fellow in 1985. He was also named by the Memphis Engineers Joint Council, the Featured Engineer of the Year in 1965, and received a Certificate of Appreciation in Advancement and Promotion Engineering Profession in 1979. Mr. Mills assisted with the charter of several ASHRAE Student Branches including the one at the University of Texas.

Mr. Mills passed away in November 1992.

The Dan Mills Technical Award was established in 1988, and recognizes a Chapter Technology Transfer Committee Chapter Chair who excels in promoting technical and energy activities. Prior to 2014 the award recognized a Chapter TEGA Chair who excelled in meeting TEGA goals in technical, energy, and government activities. In 2019, the Dan Mills Technical Award and the Chapter Program Star Award were combined to create the Dan Mills Chapter Programs Award. The award consists of a plaque and lapel pin.
DONALD BAHNFLETH ENVIRONMENTAL HEALTH AWARD

Donald R. Bahnfleth, born July 16, 1927 had an extensive career as research professor, editorial director of Heating/Piping/Air Conditioning magazine, and consulting engineer. He wrote over 30 articles and gave speeches all over the world. He was the driving force in opening up opportunities for women and minorities in all ASHRAE activities. In addition, he was outstanding in planning and directing complex heating, ventilating, and air conditioning projects.

During his ASHRAE presidential year of 1985-1986, Donald R. Bahnfleth recognized the increasing interest in and concerns about indoor air quality in buildings and ASHRAE’s potential role in addressing those concerns. As president he emphasized research efforts in energy use, indoor air quality, and fire and smoke control. He convened a presidential ad hoc committee with some of the world’s leading experts in the field and charged them with examining the issue of IAQ and ASHRAE’s role. The findings of this ad hoc led to the initiation of the ASHRAE IAQ conference series that continues to this day, the creation of the Environmental Health Committee, and a recognition of ASHRAE as a key source of information, standards, research and publications in the field.

Donald R. Bahnfleth died August 11, 2016 at the age of 89.

The award, originally named the Environmental Health Award, was renamed to the Donald Bahnfleth Environmental Health Award in 2019. The Environmental Health Committee renamed this award in an effort to recognize the key role of Mr. Bahnfleth in ASHRAE’s environmental health activities and to ensure that his role is remembered. Established in 2006, this award recognizes excellence in volunteer service focused on environmental health issues.
DONALD A. SILLER REFRIGERATION AWARD

Donald A. Siller, P.E., was born in Chicago, Illinois on October 6, 1940. He received a Bachelor’s in Mechanical Engineering from the Illinois Institute of Technology in 1964 and an MBA from Washington University in 1977. He was the president and owner of Electro Motion Refrigeration, Inc. in Chesterfield, Missouri until 2004 and through his knowledge became a leading expert in the area of Refrigeration.

Totaling more than forty years of experience in industrial refrigeration system engineering, design and applications, Don was a registered professional engineer and longtime member of ASHRAE.

Don worked on a number of large scale refrigeration projects, including design of the Pinnacle Foods Ammonia Blast Freezing system, the replacement of the HCFC in Mid States Dairy, the Hazelwood Farms Bakery blast freezer, and computer control system for par-baked products.

While representing the St. Louis Chapter as Chapter President, Secretary, and Membership Promotion Chair for a number of years, Don, through his commitment and dedication to ASHRAE, inspired members to work together to bring change and excellence within the refrigeration industry.

Constantly challenging the Society to remember the “R” in ASHRAE, he worked tirelessly to disseminate knowledge regarding the refrigeration industry and was well respected by his peers. Don served on a number of ASHRAE committees and councils, including the Refrigeration Committee, the Chapter Technology Transfer Committee, and Technology Council. He was also an ASHRAE Life Member and Distinguished Service Award recipient. It is because of his work, service, and tireless dedication to the Society and the industry, that this award bears his name.

Donald A. Siller, P.E. died in September 2013 at the age of 73.

The Chapter Technology Transfer Committee’s “Refrigeration ‘R in ASHRAE’ Award” was renamed the “Donald A. Siller Refrigeration Award” in 2015, and recognizes exceptional performance by a Chapter Refrigeration Chair for planning activities and providing technology transfer on the subject of refrigeration. The award consists of a plaque and lapel pin.
E. K. CAMPBELL AWARD OF MERIT

Member and Secretary of the Life Members Club, E. K. Campbell enjoyed a long association with the Society since joining ASHVE in 1920. He served as Secretary-Treasurer for the ASHRAE Life Member Club from its inception until his death on November 25, 1962. Numerous functions have included terms on the ASHVE Council from 1931-33 and 1939-42 and as national Treasurer from 1942-43.

Mr. Campbell represented the Society in the development of the insurance code for heating and ventilating garages from the standpoint of carbon monoxide. Additionally, he served as Chair of the committee to develop a code for testing and rating heavy-duty furnaces.

Other committees on which he has served are: Technical Advisory on Garage Ventilation, Chair, 1928-30; Technical Advisory on Ventilation of Garages and Bus Terminals, Chair, 1931-35; Increase of Membership, 1931; Chapter Relations, member 1931, Chair, 1932-33; Membership, Chair 1933, 1939, member, 1940; Research 1934-36; Intermittent Heating, Chair, 1937; Technical Advisory on Heat Requirements of Buildings, 1939-42; and Finance Committee of Committee on Research, 1941.

Active as well in the Kansas City Chapter, he served as President from 1931-31, and was a member of various committees. A graduate of Grinnell College, Mr. Campbell was President of the E. K. Campbell Company, a firm he founded in 1910. He first developed the furnace fan system based on recirculation instead of carbon dioxide. Mr. Campbell has written numerous articles and presented papers at Society meetings.

Chairman of the Board of E. K. Campbell Company, ASHRAE Fellow and Life Member, Mr. Campbell died at the age of 87.

The Life Members Club “Award of Merit” was renamed the E.K. Campbell Award of Merit in 1963, and is presented by the Life Members Club to honor outstanding service and achievement in teaching. The award consists of a $10,000 honorarium and plaque.
F. PAUL ANDERSON AWARD

He is noted now as the namesake of the F. Paul Anderson Award. This is ASHRAE’s highest award. It is given once per year to a member for “notable achievement, outstanding work or service in any field in the Society.” Clearly he must have been an unusual ASHRAE contributor himself.

He was born in South Bend, Indiana in 1867. There was no record available of his early life or accomplishments outside his professional experience. He graduated from Purdue University in Mechanical Engineering in 1890 and later received a Professional Mechanical Engineering degree in 1894.

In 1891 he was appointed Professor and Dean of the School of Mechanical Engineering at the then A&M College of Kentucky at Lexington. This soon became the University of Kentucky. He had a long and productive career there. He introduced several new courses in ME as well as other departments. He introduced cultural requirements for a degree in engineering long before courses in the humanities were required for engineering degrees, as is universal in these days. He devoted his professional life to building a notable College of Engineering, and under his leadership it became one of the top schools in the nation.

In 1921 he joined ASHVE and immediately became active. He made several comments on technical papers and authored one on dust in building materials in 1923. He was named Director of Research in 1923, after the untimely death of the first director. The Laboratory in Pittsburgh, Pennsylvania was only two years old. He served for four years shuttling between Lexington and Pittsburgh. He recruited many of his best students and young faculty members to work in the laboratory. During his tenure 62 papers were published on heating, ventilating and air conditioning. He published a paper on the need or ventilation standards in 1926. He also was trying to develop a “zone of comfort of atmosphere” including solar energy and temperature to provide an ideal environment. He also published a paper on radiator performance in 1928. He was a prolific commenter on many technical presentations in national meetings.

In 1927 he was elected President of ASHVE as a result of his many contributions. He was on several important committees including the Advisory Council, and helped formulate many new policies for the growing Society.

He was also a member of the National Research Council, the American Association for the Advancement of Science and the Royal Society for the Encouragement of Arts.

ASHVE initiated an award in 1930 to recognize a person who had made the greatest contribution to the field of heating and ventilation. It was named the F. Paul Anderson Award. Thornton Lewis, President of ASHVE in 1929, said “He has directed the education of more engineers engaged in the heating and ventilating profession than any other man in the world.” The award consists of a plaque with a medallion.

F. Paul Anderson was Dean of Engineering at the University of Kentucky for 43 years until his death in 1934 at the now early age of 67.

GEORGE B. HIGHTOWER
Mr. Hightower was a native of Atlanta, GA, born March 28, 1911. He was a 1933 graduate of Virginia Military Institute with a degree in Electrical Engineering and as a Second Lieutenant in the Cavalry Reserve. He entered the Air Force on January 21, 1942 and on September 8, 1943, he left Norfolk, VA by convoy through the German bombing attacks in the Mediterranean to Bombay, India. He later served as a Major in the Air Force Flying Tigers and was stationed in China during the Japanese invasion. As the Japanese approached, he was responsible for destroying several air bases after the American and Chinese forces had evacuated, often behind Japanese lines.

His dedication and abilities were described by one of his fellow officers in a letter to their commanding officer stating "His evacuation of Sincheng, Namkyung, and Kanchow could not have been improved upon. Hightower has a keen faculty of grasping a complicated over-all picture in one squint, and of retaining it for prompt, balanced and constructive decisions later." He was the recipient of the Legion of Merit, the Bronze Star with Oak Leaf Clusters, the American Theater Ribbon, and the Asia Pacific Campaign Ribbon.

Mr. Hightower spent 55 years in the engineering and contracting professions. 35 years of those years as one of the owners of Conditioned Air Engineers, a commercial air conditioning contracting firm in Atlanta, GA. During that time he actively served in numerous capacities including on the Board of Directors of the National Society of Professional Engineers (NSPE), Georgia Society of Professional Engineers (GSPE), Georgia Engineering Foundation (GEF), Society of American Military Engineers (SAME), National Environmental Balancing Bureau (NEBB), and the American Society of Heating, Refrigeration, & Air Conditioning Engineers (ASHRAE). He was a Fellow of the SAME and ASHRAE and awarded Life Member status from Associated Mechanical Contractors of Atlanta (AMCA) and ASHRAE. He was recognized as Eminent Engineer by Tau Beta Pi.

Mr. Hightower died on November 8, 2008 at the age of 91.

Established in 2006, the George B. Hightower Technical Achievement Award recognizes an individual for excellence in volunteer service in the area of Technical Committee/Technical Group/Technical Research Group leadership and contribution. The form of the award is a plaque.
HOMER ADDAMS AWARD

The Homer Addams Award recognizes a graduate student who has been engaged in an ASHRAE research project. The award was authorized in June, 1956, and the first award was given in 1957. In June, 1959, the ASHRAE Board of Directors was pleased to receive a $10,000 endowment from Paul K. Addams, Homer Addams’ son. In 1991 the endowment of the award was increased to $25,000 and the honorarium was increased from $600 to $1500. The award also consists of a plaque and lapel pin.

Mr. Addams was born June 22, 1873, in Addamstown, Pennsylvania, a town established by his ancestors in the early 1700’s. He began his business career at the age of 15 after completion of preliminary education in public schools in the Addamstown area and in the Schuylkill Seminary. The desire for education was so great that he managed to combine business with study, taking business and engineering courses in his off hours.

His first job was as a helper, installing heating plants in Eastern Pennsylvania. In 1895, he joined Barber and Ross, a heating contracting firm in Washington, D.C. Mr. Addams handled development, engineering and research of the products for a group of cast-iron boiler manufacturers in Philadelphia in 1896. During that same year, he was a founder of The American Society of Heating and Ventilating Engineers.

In 1903 he was employed by the Kewanee Boiler Company of Illinois. He went to Washington as a special representative to contact government agencies and to act as a consultant on various heating projects. He rejoined the Kewanee Boiler Company in 1911 to set up a New York branch and also to serve as sales manager of the operation. From 1911-18, he spent much time in Washington as a liaison representative between the company and the government on the design and development of boilers and hot water heaters.

Foreseeing the extended growth of construction along the eastern seaboard and the prospect of sizeable business volumes, Mr. Addams joined with the Kewanee Boiler Company of Illinois in 1920 to form a subsidiary company known as the Kewanee Boiler Company of New York. His initial position with the new firm was Vice President, and in 1921 he became President. The same year he acquired the Fitzgibbons Boiler Company, of Oswego, New York, and also became its President. He resigned as President in 1947, and was succeeded by his son, Paul K. Addams. Concurrently, he became Chairman of the Board of the firm and pursued his responsibilities with the same fervor that marked his long and outstanding career.

Dr. Addams’ career closely paralleled that of ASHVE, being identified with the advancement of engineering practice, research and development techniques in the field of heating and air conditioning. He received the F. Paul Anderson Medal in 1952 in recognition of his notable contributions to the advancement of the fields of boiler design and performance.

In the 1951 he was awarded the degree of Doctor of Science from Albright College.

Homer Addams served as ASHVE President in 1924. He also served as First Vice President, Treasurer and on the ASHVE Council. He was active in the founding of the Society’s Research Laboratory at the United States Bureau of Mines, Pittsburgh, Pennsylvania, in 1919, and was a member of the first Guide Committee in 1922. He served ASHVE with many committee assignments.

He also held membership in the American Society of Mechanical Engineers, the American Uniform Boiler Low Society, the Steel Boiler Institute, Inc., the Engineers Club of New York, the Engineers Club of Philadelphia, and the Greenleaf Lodge, F. & A. M., Allentown, Pennsylvania.
JOHN F. JAMES INTERNATIONAL AWARD

John F. James was born in Kiukiang, China, the son of an English missionary who worked in various parts of the world, and spent several childhood years in Hong Kong. Eventually the family settled in Bournemouth, a city on the south coast of the United Kingdom. Mr. James obtained his academic qualifications through Bournemouth Technical College and South Bank Polytechnic and was a Chartered Engineer.

In 1960, after completing his National Service commitment as a member of the Royal Air Force, he joined the firm of R. W. Gregory & Partners in London as a Design Engineer, in which position he was responsible for the design and supervision of all building services and structural work on major projects. He became a Partner of the firm in 1972 and remained in this capacity until 1991, when he became a Director and Partner in the London office of the Canadian firm, The Mitchell Partnership.

Mr. James was widely respected for his work in integrating mechanical and electrical building engineering services. Among his many designs were innovative systems for a $70 million sports facility in Saudi Arabia, cold storage facilities with requirements to –29°C, underground military complexes, and a deicing plant for British Airways. He was elected a Fellow of The Chartered Institution of Building Services Engineers in 1972 and was made a Fellow of the Institution of Hospital Engineers in 1982. He also served on the British Standards Institute Committee which developed specifications for expansion vessels using an internal diaphragm for sealed hot water heating systems.

Mr. James joined ASHRAE in 1979. After serving with distinction on a number of ASHRAE Standing and Technical Committees, in June of 1989, he was elected as a Director-at-Large of the ASHRAE Board of Directors. In June 1992, he was elected as a Vice President of the Society, the first member residing outside North America and the non-contiguous states and territories to become an ASHRAE officer and member of the Executive Committee. In January 1993, he was made a Fellow of ASHRAE. Using his broad contacts in the European HVAC&R industry, Mr. James served as an ASHRAE liaison there, assisting in the dissemination of technology to ASHRAE members and others throughout Europe. In 1993, Mr. James received the International Activities Award in recognition of his outstanding efforts to enhance the Society’s image in the international community.

Mr. James passed away on June 29, 1993 while attending the Society’s 1993 Annual Meeting in Denver, Colorado.

The International Activities Award was established in 1983 to recognize members of the Society, both international and domestic, who have done the most to enhance the Society’s international presence or posture. The award was renamed the John F. James International Award in 1996. The award consists of a plaque and lapel pin.
Lincoln Bouillon Award

Lincoln Bouillon joined ASHVE in 1933 and was President of the Pacific Northwest Chapter in 1935. Following the formation of ASHRAE, he achieved a grade of Fellow in 1963 and held Society officer positions as a member of the Board of Directors from June 1962, Vice President for the 1964-65 fiscal year and President-elect for the 1965-66 year.

Other activities in which he participated at the Society level included membership on the Program Committee, Technical Coordinating Committee, the Task Force for the New Psychometric Chart, the Charter and Bylaws Committee, and the Finance Committee.

During his career, he emphasized membership promotion and felt that people making their living in air conditioning should become active participants in the Society. He spearheaded a membership campaign in 1965 that resulted in 105 new members for the Puget Sound Chapter, an increase of about 40% during a three-month period.

The Lincoln Bouillon Award was established in 1967 to commemorate Mr. Bouillon’s effort in increasing Society membership. The award is given each year to a Society member who has achieved the most outstanding record in membership activities during the previous year.

The award was initiated by Clarence F. Fleming, Membership Promotion Chairman, and approved by the Board of Directors in memory of President Lincoln Bouillon. An award is presented annually to the individual who performs the most outstanding work in increasing the membership of the Society. The award consists of a plaque and lapel pin.

Lincoln Bouillon’s legacy to ASHRAE and the consulting engineering industry continues with the firm he founded in 1931, in Seattle, Washington, that bears his name today.
Lou Flagg was born April 12, 1914 in Augusta, Maine. He graduated from Central High School in 1932, and from the University of Maryland with a B.S. in electrical engineering in 1936. He worked for Kingswell, Inc. as an Assistant Superintendent until 1941, when he joined the U.S. Army. He was serving as Lt. Colonel in 1946 when he left the army to begin a long career with Honeywell, working in Washington, D.C., New York City and Minneapolis until his retirement in 1984.

Mr. Flagg served ASHRAE for more than 50 years on numerous committees and councils, becoming Society President in 1988-89. During Mr. Flagg’s service to ASHRAE, he received the Distinguished Service Award, the “Logbook of Time” Award as historian for ASHRAE’s Region VI, the Presidential Certificate of Honor, the Andrew T. Boggs Distinguished Service Award, and the Distinguished Fifty-Year Member Award. He was elected Fellow in 1984. He also received the Centennial Medal from the University of Maryland College of Engineering.

Mr. Flagg authored many articles and chapters of books including the ASHRAE Handbook and its predecessor ASHRAE Guide, the IEEE Gray Book, and a Training Book on Pneumatic Controls for the United Association of Pipefitters.

Mr. Flagg’s many building projects during his career included the Senate Office Building and buildings for the Richmond News and the University of Richmond. Mr. Flagg died October 27, 1999 after courageously battling breast cancer for over four years.

The Lou Flagg Historical Gold Ribbon Award was approved by the ASHRAE Board of Directors in June 2002 “to recognize a Chapter Gold Ribbon Award winner for compiling information on outstanding historical projects or persons related to HVAC&R.” At the recommendation of the Historical Committee, the name of the award was changed to the Lou Flagg Historical Award in June 2003. The award consists of a plaque and lapel pin.
LOUISE AND BILL HOLLADAY DISTINGUISHED FELLOW AWARD

William L. Holladay became a member of ASRE in 1930. He was a Presidential Member, Fellow, and Life Member. He was elevated to the grade of Fellow in 1950 and became President of ASHRAE in 1968.

Mr. Holladay served as chairman of the Honors and Awards Committee twice, chaired the Charter and Bylaws Committee for two years, and the Weather Data Committee for eight years. In 1961, he was a member of the Research and Technical Committee. He was President of the Southern California Chapter twice during his career while the chapter was still an ASRE Section. He also held membership positions on TC 2.1, Physiology and Human Environment, and TC 2.2, Plant and Animal Environment.

Mr. Holladay published ten papers and two books and authored several ASHRAE Journal articles. In an ASHRAE video, “Leadership Recalled,” made before he died, Mr. Holladay noted that he was the first member of the “white goods” business (sales of refrigerators) to join ASRE. He also held a patent on a heat exchanger.

Mr. Holladay initiated the Louise and Bill Holladay Distinguished Fellow Award in 1979. In 1978 Mr. and Mrs. Holladay contributed $5000 to finance the new award with the “hope that the income from the gift be used to finance a medal for Distinguished Fellowship, the criterion for which would be pre-eminence in Engineering. And it is our hope also that it may be known as the Louise and Bill Holladay Distinguished Fellow Award. The award consists of a plaque with a medallion.

Mr. Holladay died in 2001 at the age of 98.
In 1998 Mr. Milton W. Garland was honored as the nation's oldest worker, having begun his career in 1920 at the Frick Co., now part of York International. He was known as “Mr. Refrigeration” for his work in refrigeration systems for gold mines in South Africa and in the ice cream factories of Philadelphia.

Mr. Garland held some 40 patents of refrigeration-related items, ranging from icemakers to screw compressor volume controls. His work in refrigeration aided in the construction of Hoover Dam for which he designed systems to cool the water, sand and rock used to make the concrete to build it.

He was a recipient of the ASHRAE F. Paul Anderson Award, the Distinguished 50-Year Member Award and the Louise and Bill Holladay Distinguished Fellow Award. In 1996, he received the first Andy Ammonia Award from the International Institute of Ammonia Refrigeration for his paper, *The Influence of Vapor Pressure in the Condensing Process of the Ammonia Refrigeration Cycle*.

At ASHRAE's Centennial Meeting in 1995, Mr. Garland was recognized as a pioneer in technology. In 1989, ASHRAE endowed an award in his honor - the Milton W. Garland Commemorative Refrigeration Award for Project Excellence. The award consists of a plaque with a medallion, and a lapel pin.

Milton Garland, P.E., Fellow ASHRAE, died in July 2000 at age 104. He was inducted into the ASHRAE Hall of Fame at the Society's 2003 Winter Meeting.
RALPH G. NEVINS PHYSIOLOGY AND HUMAN ENVIRONMENT AWARD

The Ralph G. Nevins Physiology and Human Environment Award is given once each year to a young researcher who has distinguished himself in man’s response to the environment, which may include thermal, acoustical, olfactory, microbial or other effects. The award includes a plaque, $500 honorarium, and lapel pin. This award honors Ralph Nevins, a remarkable man of many accomplishments, who died of cancer at the age of 48. The award recognizes Dr. Nevins’ great interest in students and the environmental field, and is funded by memorial contributions in his name.

He was born in 1925 and grew up in Dodge City, Kansas. He earned BS and MS degrees in Mechanical Engineering from the University of Minnesota and a Ph.D. from the University of Illinois. He spent a year in the military and joined the faculty at Kansas State University as an instructor. He rose quickly to full professor and ME Department Head in 1957. He was the Kansas Power and Light Company Distinguished Professor, 1963-67, and he received distinguished alumni and service awards from the University of Illinois in 1970 and 1971. He conducted much original research. In 1958 he co-authored a paper on a concentrating solar collector.

In 1961, ASHRAE decided to close its research laboratory, located in Cleveland since 1924, and invited interested organizations to bid on receiving its considerable equipment. Dr. Nevins, seeing an opportunity to develop a significant new program, bid on ASHRAE’s environmental chamber. He, with the University’s permission, obtained from the state of Kansas $160,000 for a building and a like amount from the National Institutes for Health for installation and operation. He obtained the chamber and promised to carry on research in ASHRAE’s interest for at least 5 years. The new facility was named the Institute for Environmental Research, and Dr. Nevins became its Director. The results are history. Dozens of the Institute’s students have received the Ralph G. Nevins Award over the years, and more than 10 graduate students and associated KSU faculty members are now ASHRAE Fellows and valuable contributors to ASHRAE. Some have received the Louise and Bill Holladay Distinguished Fellow Award.

He was instrumental in developing the engineering Ph.D. program and the College of Engineering Center for Effective Teaching at KSU. In 1967 he was promoted to Dean of Engineering at KSU. Along the way he received ASHRAE’s Distinguished Service Award. He published over 70 technical papers in ASHRAE, ASME, ASEE and others. He delivered many technical speeches, several of which were invited and some were overseas. He was on many ASHRAE General Committees and on the Board 1964-66. He was on several Technical Committees and Standards Project Committees.

In 1973 he accepted the position of Fellow and Head of the Environmental Engineering Group and Member of the Executive Committee of the John B. Pierce Foundation Laboratory, New Haven, Connecticut, a world class environmental research organization. In association with Yale University, he was also a visiting professor of Environmental Technologies. Unfortunately, within a year he died. However, he was working with some Pierce scientists even before his appointment, and he authored or co-authored 6 papers from Pierce. Some of the papers were published posthumously.

He was active in ASME, serving on many committees, including the National Nominating Committee, Policy Board and ME Department Heads Committee. In ASEE he was Midwest Section Chair, a member of their Distinguished Lectureship Roster, member of several committees and Vice President 1968-70. He was a registered engineer in Kansas and a member of NSPE. His name appears in eight “Who’s Who” publications of well known engineers and other significant people.

He was on the Board of Directors and Chair of the Budget Committee of Project Concern. He was Chair of the Kiwanis Club, Manhattan, Kansas, and a Director of the Chamber of Commerce. He was a Director of the Kansas State Bank. He was a member of the Governor of Kansas’ Committee on Marijuana Investigation. He was a member of the Methodist Church and of the US Naval Reserve. He was a private pilot, an amateur radio operator, a scuba diver, and a Mason. He was a pianist and a percussionist in the KSU Symphony Orchestra.
WILLIAM J. COLLINS, JR. RP AWARD

William J. Collins, Jr. was born May 26, 1915 in Iron River, Michigan where he lived and graduated from high school in 1931. He received a BSME Degree from Michigan Tech University in 1935. After working a year for Swift and Company as an engineer, he was employed by C. A. Dunham in the Research and Development Department in Michigan City, Indiana.

In late 1937 he joined Loeffler-Givens Supply Company of Oklahoma City as a consulting engineer. In 1941, Mr. Collins was employed by the Austin Company of Ft. Worth, Texas. In 1942, he joined the U.S. Army Corp of Engineers, where he served until 1946 as a Lt. Colonel Reserve. Mr. Collins returned to Oklahoma City and established Collins Engineering Associates and served as CEO and President for thirty years.

Mr. Collins became a member of ASHVE in 1949, and served actively in the Society. He was the first editor of the Central Oklahoma Newsletter – The “Southwester”. He served as Chapter President in 1952, and introduced the ASHRAE diamond studded Past Presidents Pin, which continues today.

By 1954, Society membership had grown to the point that it was difficult for the Society President to visit all chapters. This was the beginning of regional meeting. Mr. Collins chaired the first of these meetings. The regional meeting concept was added to the Society Bylaws in 1952.

In 1959, Mr. Collins was elected to a 3-year term on the Council of ASHAE. However, he was only able to serve part of one day, due to the merger of ASHAE and ASRE. That merger resulted in becoming ASHRAE. Mr. Collins was to serve 1-1/2 years on the ASHRAE Board of Directors as a RVC, was re-elected for a 3-year term, and was instrumental in the forming of Region VIII. From that point, he went on to become Society Vice President and then President.

In 1971, Mr. Collins and others from Region VIII were able to develop the Golden Gavel Award. From this program, he developed the PAOE system, which has developed into a major portion of chapter operations planning.

In 1972, Mr. Collins was instrumental in developing the Research Promotion program (now Resource Promotion) that today is successful in financing a great portion of the research that ASHRAE contacts. The Society Board of Directors, in an effort to show gratitude to Mr. Collins, created the William J. Collins Research Promotion Award. This award recognizes the outstanding Chapter Resource Chair in Society annually.

In 1976 Collins-Soter Engineering was formed, and in 1991, he started the Collins Enterprises to pursue projects at a less hectic pace.

Mr. Collins is a Presidential, Fellow and Life Member, as well as serving actively in Central Oklahoma Chapter. He has also served as a Trustee on the Foundation Committee, and as Chair of the Journal and Insights Committee.

Mr. Collins has served as President of the Consulting Engineers Council of Oklahoma and is a Life Member. He is also a Life Member of the American Consulting Engineers Council and is a member of the Hall of Fame at Oklahoma State University.

Mr. Collins has received numerous ASHRAE awards including becoming a Fellow in 1966, the Distinguished Service Award in 1965, the Regional Award of Merit in 1978, the Andrew T. Boggs Service Award in 1993, the F. Paul Anderson Award in 1997, and The Distinguished 50-Year Member Award in 1999.

The William J. Collins, Jr. RP Award was established in 1985 to honor the Chapter RP Chair who excels in raising funds for ASHRAE’s RP Campaign. The award “recognizes the Chapter RP Chair who excels in raising funds for ASHRAE. The award consists of a plaque with a medallion, and a lapel pin.”
**WILLIS H. CARRIER AWARD**

**Dr. Willis H. Carrier** was born in Angola, New York in 1876. He received his elementary education in district schools of Erie County and graduated from Central High School, Buffalo, New York. He received a degree in mechanical engineering from Cornell University in 1901 and his doctorate was conferred upon him at Lehigh University in 1935. He also received his doctor of science degree from Alfred University in 1942. Known widely as “The Father of Air Conditioning,” it is said he installed the world’s first scientifically designed air conditioning system in 1902.

Dr. Carrier was employed by Buffalo Forge Company as a project engineer from 1901 until 1906. During this period he devised a solution to a major temperature and humidity problem occurring during summer at the Sackett-Wilhelms Lithographing and Publishing Company in Brooklyn, New York. This solution led to the invention of the spray type dehumidifier which later became a standard in controlling space temperature and humidity.

1907, Dr. Carrier and a group of his colleagues formed Carrier Air Conditioning Company of America as a subsidiary of Buffalo Forge Company. After the company became independent in 1915, he served as President until 1931, at which time he became Chairman of the Board.

Dr. Carrier was associated with all the “firsts” during the infant stages of air conditioning. He is credited with the design of the centrifugal refrigeration machine. Dr Carrier provided the first air conditioning not only in the printing and textile fields, but also made some of the first installations in paper mills, rubber, chemical, pharmaceutical, rayon, candy, aircraft, electrical and motion picture manufacturing plants.

Some of his notable accomplishments are: received Gold Achievement Medal as member of ASME; served as President of both ASRE and ASHVE; holder of many patents and author of numerous publications; Member of ASRE Advisory Board and edited the first publication of Refrigerating Data Book; Published “Fan Engineering” in 1914; presented paper to ASRE entitled “Rational Psychometric Formulae” which set in place the science of air conditioning; received the F. Paul Anderson Award in 1932; presented paper in 1915 to ASRE entitled “Centrifugal Compression as Applied to Refrigeration” which described his work leading to the development of centrifugal refrigeration machines; inducted into National Inventors Hall of Fame in 1985, joining a list of distinguished inventors such as Thomas A. Edison, Alexander Graham Bell, Charles Goodyear and George Eastman.

Dr. Willis Haviland Carrier died in 1950 at the age of 74. He was inducted into the ASHRAE Hall of Fame on June 25, 1994 at the Society’s 1994 Annual Meeting in Orlando, Florida.

The Willis H. Carrier Award was established in 1960. It is sponsored by the Carrier Corporation and is awarded for the best published paper of outstanding quality presented at a Society meeting by a member of any grade who was 32 years of age or less at the time of presentation of the paper. The award consists of a $500 honorarium and a plaque.
APPENDIX P-1: HISTORY OF F. PAUL ANDERSON AWARD

Philadelphia, Pennsylvania
January 13th, 1930

The Council of the
American Society of Heating & Ventilating
Engineers

Gentleman:

I herewith take pleasure in presenting to the American Society of Heating and Ventilating Engineers a certified check for the sum of One Thousand Dollars, subject to the following conditions:

1. That this sum, together with such other sums as may be added to it, be made a permanent endowment fund, the income from which shall be used to provide an annual medal of award (accompanied by suitable certificate), to some member of the A.S. H.V. E. in recognition of work done or services performed in the field of Heating, Ventilation or Air Conditioning;

2. That the Council of the A.S. H.V.E. shall in its discretion invest the principal and administer this fund, decide itself, or by special committee appointed by it, to whom the award shall be made, and shall decide and announce to the Society at least one year in advance, the conditions upon which the award will be made;

3. While it is herein stated that this is to be an annual award, the Council of the A.S.H.V.E. shall have the power to refuse to award the said medal in any year if in its opinion no work or service worthy of the honor has been performed in accordance with the conditions which the said Council previously set forth. Should such conditions prevail, the income from the fund shall be added to the principal;

4. That all decisions of the Council relating to this award shall be made by a majority vote of all the members of the Council;

5. Should the A.S.H.V.E. go out of existence, then its last Council duly elected shall have the power to dispose of this endowment fund in such manner and for such purpose as may best promote the art of Heating and Ventilating.

6. The name of this award shall be “The F. Paul Anderson Medal.”

(Signed) Thornton Lewis
APPENDIX P-2: HISTORY OF MILTON W. GARLAND REFRIGERATION AWARD

ASHRAE, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
1791 Tullie Circle, NE • Atlanta, Georgia 30329 • Tel 404.636.8400 • Tlx 705343 • Fax 404-321-5478

J. Thomas Sobieski
Vice Chairman, Region III
Refrigeration

Reply to: Miller Picking Corporation
P. O. Box 130
Johnstown, PA 15907
Ph: 814-479-4023
Fax: 814-479-2469

January 29, 1990

TO: Mr. David Rickelton, P.E.
Chairman, Honors and Awards Committee
3413 Highview Road
Charlotte, NC 28210

Re: Refrigeration Award

Dear Mr. Rickelton:

As a follow up to your telephone conversation with Fred Pearson this past November, you are award that he, I, and many others (see attached letters) have been actively pursuing the establishment of a Society level Refrigeration Award named after Milton W. Garland. The award would be similar in concept to the Lincoln Bouillion Award for membership and the Williams J. Collins, Jr. Award for research promotion in that it would promote refrigeration activities and education at the chapter level by recognizing superior achievement by chapter refrigeration committee chairpersons.

To date we have made progress. A motion to establish the award has passed the Region III CRC, has been presented at the Members Council meeting in October, which then referred it to the Refrigeration Committee (see copy of Members Council minutes, page 11 attached). The motion has been put on the Refrigeration Committee agenda to be held in Atlanta on Sunday, February 11, 1990 at 8:30 a.m., has the endorsement of the Chairman, Mr. Stan Westhoff (see letter attached) and, therefore; has excellent prospects of passing.

Financing of at least $2,000.00 has be secured by Region III funds and we have a verbal indication that Frick Company (Mr. Garland’s long time employer) would be willing to donate $10,000.00 which would also cover the cost of transportation of the award recipient to the annual meeting.

Also, in accordance with “Rule of the Board” #S80-001-006, I have enclosed a Biographical Record (please note in particular that Mr. Garland is an ASHRAE fellow, recipient of the Life Member Award, Distinguished Service Award and the F. Paul Anderson Award) and many letters of endorsement from distinguished ASHRAE members recommending establishment of the award in the name of Milton W. Garland. Mr. Garland is my immediate predecessor as Refrigeration Vice Chairman Region III and I can attest that he made every effort to assist me in the transition and has continued to volunteer his time to the Region in many ways but especially as a teacher through seminars and chapter programs.
Letter to Mr. David Rickelton
January 29, 1990

I would like to ask for your help in reviewing the enclosed to see if any additional information would be required by your committee to properly evaluate this proposal and also request some time on your agenda to explain the award to your committee members. Hopefully, your meeting would be after the Refrigeration meeting so I could come before you with the passed motion.

We, also, would like to have your Committee’s endorsement at this meeting so that the motion can be taken to the Board of Directors and hopefully approved so that we could make a special presentation to Mr. Garland at the summer meeting in St. Louis to celebrate his 95th birthday which will occur in August and also have the award in place so that the first award can be made to coincide with the first year the Refrigeration Committee has full grassroots status and has become part of the PAOE system. The first recipient would be selected based on PAOE points earned this society year (1989-90) and would be selected at the winter meeting of the Refrigeration Committee in January 1991 (in New York) and with actual award presentation made at the Plenary Session at the annual meeting in June 1991 (in Indianapolis).

I will call you before the Atlanta meeting to arrange details and provide any additional information you may require.

Best regards,

(Signed) J. Thomas Sobieski

cc: George W. Buckler, Vice President and Chairman of Technology Council
    Neil R. Patterson, Vice President and Chairman of Member Council
    Stanley M. Westhoff, Chairman Refrigeration Committee
    James H. Norman, Manager Technical Services
APPENDIX P-3: HISTORY OF ASHRAE AWARD FOR DISTINGUISHED PUBLIC SERVICE (FORMERLY NAMED ASHRAE-ALCO AWARD FOR DISTINGUISHED PUBLIC SERVICE)

ASHRAE-ALCO AWARD
(Letter)

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

John E. Dube  
C/o Alco Valve Company  
P.O. Box 398  
Creve Coeur Branch  
St. Louis, Missouri 63141  
U.S.A.

United Engineering Center  
345 East 47th Street  
New York 17, N.Y. Plaza 2-6800

July 4, 1965

TO THE BOARD OF DIRECTORS:

A great deal has been said about the poor public image of engineers, but like talking about the weather, nothing is ever done about it.

The improvement of our image would not be merely an idle gesture to gain friends and increase popularity, it is of vital importance if we are to attract bright and capable young men, potential leaders, to a career in engineering.

Some people think this is an imaginary problem, but I fear they are indulging in wishful thinking. About 1961 the Bar Association of my home state of Missouri engaged an independent research organization to find out what the Missouri public thought of the Legal Profession and why. The project was financed by a grant from the Prentice-Hall Foundation and the report was published in 1963. It contained a by-product that was of particular interest to me as an engineer:

The public was asked to rate lawyers “in general reputation in the community” in comparison with six other occupational groups. Without regard to competency, merely on the basis of community reputation, lawyers were ranked against bankers, clergy, doctors, dentists, teachers and engineers.

In this study, which appears to have been conducted in a highly objective and competent manner, engineers came out last with an alarming consistency. We were last in the large cities as well as in the country; we were named last by every single occupational grouping of people who were interviewed. Every one of these categories placed engineers’ reputation in the community last; white collar, blue collar, service worker, farm worker, armed forces, retired, housewives, unemployed and “others.” There was a further breakdown by income groups and the only people who gave us a little break were those with annual incomes over $10,000. They put us second last just ahead of the teachers.

Since this study was conducted for the benefit of the legal profession, it did not go into depth for the other occupations and no qualifying data was sought to explain the poor standing of engineers.
Letter to BOD
July 4, 1965

I have heard many explanations of this regrettable phenomenon and so have you, no doubt. The term engineer has been abused, the public is confused and does not know what an engineer is, his work does not bring him in direct contact with the public, engineers are inept in the field of public relations, etc., etc. I am sure these are all factors contributing in varying degrees to our poor public image, but in my judgment there is another even more significant factor and that is the engineers’ general indifference to civic affairs.

It is a peculiar enigma that, in an age when technical change and progress have become the most powerful force in human society, the people responsible for most of this change and progress, the engineers, seem to shun the council tables and public forums where the destiny of the product of their efforts is decided.

I am convinced that this incredible indifference is one of the major contributing factors to the poor public image of engineers.

Of course, civic mindedness is primarily a personal matter and not the direct concern of a technical society. Indirectly, however, the Society has an obligation to motivate its members to individually take part in public affairs on all levels. To this end I am proposing to this Board of Directors the creation of a new award to be given annually to a member of the Society who has distinguished himself conspicuously, not in the advancement of our arts and science not through special service on behalf of the Society, but who distinguished himself conspicuously, on a voluntary basis, in behalf of his community or his country.

We need engineers of highest technical competency and we reward them. We also need engineers endowed with a high degree of social responsibility and public awareness – and we should also reward them.

Specifically, I am proposing

That this Board of Directors accept on behalf of the Society the sum of $1,500.00 from the Alco Valve Company to establish and maintain an award to be known as the “ASHRAE-Alco Medal for Distinguished Public Service,” that the medal and a suitably inscribed scroll be awarded annually to a member of the Society, said member to be chosen by the Honors and Awards Committee and approved by the Board of Directors; and that the Honors and Awards Committee be charged with the preparation of rules governing the administration of the award.

(Signed) John E. Dube
President
June 1, 1987

ROBERT V. OGRODKI
PRESIDENT

Mr. Frank M. Coda
ASHRAE
1791 Tullie Circle, NE
Atlanta, DA 30329

Dear Frank:

This is to acknowledge your correspondence concerning the ASHRAE/Alco Award for Distinguished Public Service and to inform you that Alco will continue to support this award, estimated to cost $300 per year. This confirms my telephone conversation with David McMinn.

Kindly send your invoice annually to my attention and we will remit the appropriate amount due.

I also ask for the opportunity to attend the function at which the above award is presented.

Please excuse the delay in formally establishing our position on this award. We trust this response meets with your approval and satisfaction.

Sincerely,

(Signed) Robert V. Ogrodnik

RVO/db
Cc: D. Goode
J. Behr
D. Hannash

ALCO CONTROLS DIVISION
EMERSON ELECTRIC CO.
P.O. BOX 12700
ST. LOUIS, MISSOURI 63141

OFFICE: 11911 ADIE ROAD
PHONE: (314) 569-4500, -4509
TELEX: 447162
# APPENDIX Q: PAST PRESIDENTS AND RECIPIENTS OF HONORS AND AWARDS

## SOCIETY PRESIDENTS

### AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS (ASHVE)

<table>
<thead>
<tr>
<th>Year</th>
<th>President</th>
</tr>
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<tbody>
<tr>
<td>1894</td>
<td>Edward P. Bates</td>
</tr>
<tr>
<td>1895</td>
<td>Steward A. Jellett</td>
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<tr>
<td>1896</td>
<td>R. C. Carpenter</td>
</tr>
<tr>
<td>1897</td>
<td>William M. Mackay</td>
</tr>
<tr>
<td>1898</td>
<td>Wiltsie F. Wolfe</td>
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<tr>
<td>1899</td>
<td>Henry Adams</td>
</tr>
<tr>
<td>1900</td>
<td>D. M. Quay</td>
</tr>
<tr>
<td>1901</td>
<td>J. H. Kenealy</td>
</tr>
<tr>
<td>1902</td>
<td>A. E. Kenrick</td>
</tr>
<tr>
<td>1903</td>
<td>H. D. Crane</td>
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<tr>
<td>1904</td>
<td>Andrew Harvey</td>
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<tr>
<td>1905</td>
<td>William Kent</td>
</tr>
<tr>
<td>1906</td>
<td>John Gormly</td>
</tr>
<tr>
<td>1907</td>
<td>C. B. J. Snyder</td>
</tr>
<tr>
<td>1908</td>
<td>James Mackay</td>
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### AMERICAN SOCIETY OF REFRIGERATING ENGINEERS (ASRE)

<table>
<thead>
<tr>
<th>Year</th>
<th>President</th>
</tr>
</thead>
<tbody>
<tr>
<td>1905</td>
<td>John Edwin Starr</td>
</tr>
<tr>
<td>1906</td>
<td>W. Everett Parsons</td>
</tr>
<tr>
<td>1907</td>
<td>David S. Jacobus</td>
</tr>
<tr>
<td>1908</td>
<td>Edgar Penney</td>
</tr>
<tr>
<td>1909</td>
<td>Louis Block</td>
</tr>
<tr>
<td>1910</td>
<td>Roderick H. Tait</td>
</tr>
<tr>
<td>1911</td>
<td>Edward N. Friedmann</td>
</tr>
<tr>
<td>1912</td>
<td>Thomas Shipley</td>
</tr>
<tr>
<td>1913</td>
<td>Peter Neff</td>
</tr>
<tr>
<td>1914</td>
<td>Henry Torrance</td>
</tr>
<tr>
<td>1915</td>
<td>Louis K. Doelling</td>
</tr>
<tr>
<td>1916</td>
<td>Theodore O. Vilter</td>
</tr>
<tr>
<td>1917</td>
<td>Nicolai H. Hiller</td>
</tr>
<tr>
<td>1918</td>
<td>Ezra Frick</td>
</tr>
</tbody>
</table>

### AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

<table>
<thead>
<tr>
<th>Year</th>
<th>President</th>
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<tbody>
<tr>
<td>1954</td>
<td>L.N. Hunter</td>
</tr>
<tr>
<td>1955</td>
<td>John E. Haines</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1954</td>
<td>John W. James</td>
</tr>
<tr>
<td>1955</td>
<td>P. B. Gordon</td>
</tr>
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</table>

### AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

<table>
<thead>
<tr>
<th>President</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cecil Boling</td>
<td>January - June 1959</td>
</tr>
<tr>
<td>Arthur J. Hess</td>
<td>June - February 1960</td>
</tr>
<tr>
<td>Daniel D. Wile</td>
<td>February - June 1960</td>
</tr>
<tr>
<td>Walter A. Grant</td>
<td>June 1960 - February 1961</td>
</tr>
<tr>
<td>Robert H. Tull</td>
<td>February - June 1961</td>
</tr>
<tr>
<td>John Everetts, Jr.</td>
<td>June - June 1962</td>
</tr>
<tr>
<td>John H. Fox</td>
<td>June - June 1963</td>
</tr>
<tr>
<td>Frank H. Faust</td>
<td>June - June 1964</td>
</tr>
<tr>
<td>John E. Dube</td>
<td>June 1964 - June 1965</td>
</tr>
<tr>
<td>James W. May</td>
<td>June 1965 - June 1966</td>
</tr>
<tr>
<td>Lincoln Bouillon</td>
<td>June - September 1966</td>
</tr>
<tr>
<td>William L. McGrath</td>
<td>September 1966 - June 1967</td>
</tr>
<tr>
<td>P. N. Vinther</td>
<td>June 1967 to June 1968</td>
</tr>
<tr>
<td>William L. Holladay</td>
<td>June 1968 to June 1969</td>
</tr>
<tr>
<td>William G. Hole</td>
<td>June 1969 to June 1970</td>
</tr>
<tr>
<td>Frank H. Bridgers</td>
<td>June 1970 to June 1971</td>
</tr>
<tr>
<td>Stanley F. Gilman</td>
<td>June 1971 to June 1972</td>
</tr>
<tr>
<td>Walter F. Spiegel</td>
<td>June 1972 to June 1973</td>
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<tr>
<td>Roderick R. Kirkwood</td>
<td>June 1973 to June 1974</td>
</tr>
<tr>
<td>David Rickelson</td>
<td>June 1974 to June 1975</td>
</tr>
<tr>
<td>William J. Collins</td>
<td>June 1975 to June 1976</td>
</tr>
<tr>
<td>William R Chapman</td>
<td>June 1976 to June 1977</td>
</tr>
</tbody>
</table>

## AMERICAN SOCIETY OF HEATING, REFRIGERATING

Honors and Awards Committee
Reference Manual (February 2019)
AND AIR-CONDITIONING ENGINEERS (ASHRAE)
Continued


Richard H. Rooley  July 2003 to June 2004
Ronald P. Vallort  July 2004 to June 2005
Lee W. Burgett  July 2005 to June 2006
Terry E. Townsend  July 2006 to June 2007
Kent W. Peterson  July 2007 to June 2008
William A. Harrison  July 2008 to June 2009
Gordon V. Holness  July 2009 to June 2010
Lynn G. Bellenger  July 2010 to June 2011
Ronald E. Jarnagin  July 2011 to June 2012
Thomas E. Watson  July 2012 to June 2013
William P. Bahnfleth  July 2013 to June 2014
Thomas H. Phoenix  July 2014 to June 2015
David T. Underwood  July 2015 to June 2016
Timothy G. Wentz  July 2016 to June 2017
Bjarne W. Olesen  July 2017 to June 2018

ASHRAE HONORS AND AWARDS RECIPIENTS

ASHRAE HALL OF FAME

Established in 1990, this award honors deceased members who have made milestone contributions to the growth of ASHRAE-related technology and/or the development of ASHRAE as a Society. Individuals inducted into the Hall of Fame must have been an ASHRAE member (any grade) or a member of a predecessor Society. The award consists of a plaque and transportation, and one night’s lodging to the meeting where the award is presented.

Francis W. Hutchinson  1994  No Award Given  2004  Fred W. Wolf, Jr.  2014
Carlyle Martin Ashley  1995  Henry Galson  2005  Rolla Carpenter  2015
Margaret Ingels  1996  Frank J. Dean, Jr  2008  No Award Given  2017
George Lewis Tuve  1996  P. Ole Fanger  2008  Lynn G. Bellenger  2018
Reuben N. Trane  1997  No Award Given  2009  Seichi “Bud” Konzo  2018
Rudolf Plank  2001  William J. Collins, Jr  2010  A. Damon Gowan  2018
Charles S. Leopold  2000  J. Donald Kroeker  2010  George Hightower  2019

ASHRAE PIONEERS OF THE INDUSTRY
Established in 2010, this award honors deceased individuals who have made milestone contributions to the growth of air conditioning, heating, refrigeration and ventilation. Individuals inducted into the Pioneers of the Industry must have shown evidence of distinction either technically or academically. The form of the award is a permanent listing with the recipient’s accomplishments that will be on display at Society Headquarters, on the ASHRAE website, and listed in a permanent binder in the ASHRAE Library.

No Award Given 2011
No Award Given 2012
Gillbert Carson 2013
William F. Fontaine 2014
John Gorrie 2015
Alfred R. Wolff 2015
Carl Linde 2016
Andrew Muhl 2016
Daniel Livingston Holden 2017
Benjamin Franklin Sturtevant 2017
Carl Georg Munters 2018
Frederick Wittenmeier 2018
Sadi Carnot 2019
No Award Given 2019

F. PAUL ANDERSON AWARD

Established in 1930 to honor the accomplishments of the late F. Paul Anderson, Past President of the Society, this award is presented annually for notable scientific achievement or outstanding services performed in the field of heating, ventilating, or air conditioning. The award consists of a plaque with a medallion.

1942..........Frederick E. Giesecke 1971..............Donald K. Tressler 1997..............Joseph B. Olivieri
1946............Alfred E. Stacey, Jr. 1973..............Seichi Konzo 1999..............Donald R. Bahnfleth
1951..............Samuel R. Lewis 1976..............Paul R. Achenbach 2002..............(No award given)
1952..............Homer Addams 1978..............Wilbert F. Stoecker 2003..............(No award given)
1953..............Everett N. Mcdonnell 1979..............Daniel D. Wile 2004..............Clark W. Bullard
1954..............Walter I. Fleisher, Sr. 1980..............Herbert L. Laube 2005..............(No award given)
1956......Robert W. Keeton, M.D. 1982..............John Engalircheff, Jr. 2007..............(No award given)
1957..............M.F. Fahnestock 1983..............William P. Chapman 2008..............(No award given)
1958..............George Lewis Tuve 1984..............No Award Given 2010..............Gerald C. Groff
1960..............Peter Ben Gordon 1986..............A.Pharo Gagge 2012..............(No award given)
1962..............C.M. Ashley 1988..............Milton W. Garland 2014..............Kent W. Peterson
1965..............Louis N. Hunter 1991..............William Goodman 2017..............(No award given)
1967..............Walter A. Grant 1993..............Jack B. Chaddock
2018..............Steven T. Taylor
2019..............(No Award Given)
LOUISE AND BILL HOLLADAY DISTINGUISHED FELLOW AWARD

Established in 1979, this award honors a Fellow of the Society for continuing preeminence in engineering or research work. The award consists of a plaque with a medallion.

ASHRAE FELLOWS

The grade of Fellow is conferred on Members who have attained distinction in the arts relating to the sciences of heating, refrigeration, air-conditioning, ventilation, or the allied arts and sciences. The award consists of a plaque and a lapel pin.

Abedin, A.—1998
Achenbach, P.R.—1959
Acor, W. A. — 2006
Adams, L.—1955
Advani, A.—1996
Aguilo, R.R.—2013
Akerman, J.R.—1981
Alber, W.F.—1992
Alderman, B., Jr.—1977
Altieri, J.L.—1986
Alvine, R.G.—1981
Ammann, W.L.—1985
Amstrong, P. R.—2015
Anderson, C.M.—1982
Anderson, P.P., Jr.—1979
Angus, D.L.—1971
Appling, E.B.—1983
Armstrong, R.M.—1950
Armstrong, R.S.—1997
Arnold, D.—2001
Asker, G.C.F.—1996
Athienitis, A.K.—2017
Atwood, T., Jr.—1992
Avery, G.—1997
Ayres, J.M.—1973
Ayub, Z.—2008
Azer, N.Z.—1992
Baade, P.K.—1971
Bahnfleth, D.R.—1975
Bahnfleth, W.P.—2005
Baker, R.G.—2009
Balaras, C.—2011
Bales, E.L.—1999
Bansal, P.—2008
Barbier, W.H.—1987

Barkman, H.G.—1987
Barnaby, C.—2016
Barnard, L., Jr.—1989
Basso, P.J.—1997
Bathgate, T.A.—1992
Baum, R.T.—1975
Bayer, C.—1999
Baker, R.G.—2009
Bahnfleth, W.P.—1990
Baker, R.G.—2009
Balaras, C.—2011
Bales, E.L.—1999
Bansal, P.—2008
Barbier, W.H.—1987

Boggs, A.T., III—1979
Boldt, J.G.—2017
Bong, T.—1990
Bosworth, C.M.—1971
Bottem, E.W.—1984
Bourquin, P.A.—1990
Bouthillette, R.—1994
Bovay, H.E., Jr.—1981
Boyce, D.K.—2009
Boyd, R.L.—1967
Bradley, T.W.—1989
Brager, G.S.—2002
Brambley, M.R.—2009
Brandemuehl, M.J.—2009
Branson, D.J.—2013
Braun, J.—2005
Braun, R.H.—1990
Brickman, H.—1987
Bridgers, F.H.—1973
Briere, J.D.—1994
Briley, G.C.—1991
Broadbent, C.R.—2015
Brown, A.M.—1987
Brown, C.R.—1991
Brown, F.L.—1985
Brown, J.S.—2013
Brown, L.N.—1977
Brown, M.R.—1993
Brown, S.W.—1967
Bruechert, C.J.—1982
Brundrett, H.G.—1998
Bruning, S.F.—1996
Bryant, D.C., Sr.—1981
Buck, W.J.—1993
Buckley, J.B.—1981
Buckley, N.A.—1992
Bullard, C.W.—2002
Burroughs, H.E.—1994
Bushby, S.—2008
Bushnell, J.—2016
Butler, D.—2005
Butler, D. S.—1992
Calm, J.M.—1997
Campbell, H.J., Jr.—1988
Campbell, H.J., Jr.—1988
Capehart, B.L.—2012
Carlson, J.A.—2017
Carroll, J.R.—1972
Carte, D.E.—2012
Carter, H.C.—1980
Cavestri, R.C.—2006
Cawley, R.E.—2002
Chaddock, J.B.—1971
Chakroun, W.—2007
Chakroun, W.—2007
Chakroun, W.—2007
Chakroun, W.—2007
Chakroun, W.—2007
Chakroun, W.—2007
Dorgan, C.E.—1985
Deltz, P.N.—1994
Decker, H.E.—1983
Dean, B.W.—1983
Dale, K.W.—1984
Cummings, J.B. —2010
Culp, C. — 2005
Crawford, J.G.—2001
Conley, H.E.—1983
Cooper, K. — 2005
Cooper, W.S.—1997
Copeland, C.C.—1991
Corley, J.H.—1998
Costa, Antonio — 2014
Costantino, M.—1985
Coughlin, R.J.—1997
Cox, J.E.—1993
Cox, W.A., Jr.—1982
Coyne, G.G.—1986
Crawford, J.G.—2001
Crawley, D.B.—2009
Cromer, C.J.—2009
Crosland, R.B.—1983
Culp, C. — 2005
Cummings, J.B.—2010
Cummings, S.D., Jr.—1994
Dale, K.W.—1984
Daly, E.A.—1994
Davidson, L.A.—2007
Davis, W.J.—1984
Deen, B.W.—1983
Decker, H.E.—1983
Deltz, P.N.—1994
Depew, C.A. —1995
DesChamps, N.H.—1999
Deshpande, S.D.—2015
Dharkar, P. — 2014
Didion, D.A.—1991
DiGiacomo, W.A.—1986
Dillon, M.E.”—1993
Domanski, P.A. —2007
Donley, W.L.—1977
Donoso, J.E.—2010
Dorgan, C.B.—2010
Dorgan, C.E.—1985
Downing, L.—1991
Downing, R.C.—1968
Driscoll, D.J.—1982
Duda, S.W. — 2013
Dunlap, J. — 2016
Dunnvant, B.K.—2017
DuPernell, P.C.—1994
Durkin, T.H.—2012
Dussault, R.E.—1992
Dwyer, T.—2008
Dzelzatis, Eglis — 2014
Elmahdy, A.H.—2009
Eley, C.N.—2018
Elovitz, D.M.—1996
Elovitz, K.—2018
Emery, A.F.—2007
Emmerich, S. — 2016
Ensor, David—2003
Ervin, D.A., Jr. —1975
Evans, G.F.—1987
Evans, L.D.—1995
Evans, R.A.—1993
Evans, R.J.—1979
Fanger, P.O.—1980
Farina, D.—1990
Fenc, F.B.—2009
Ferdelman, T.J.—1998
Fernandes, E.O.—1997
Ferreira, F.—1993
Field, J. — 2008
Fiorino, D.P.—2001
Fischer, H.C.—1979
Fisher, D.—2009
Fisk, W. — 2005
Fitzner, K.—1999
Flaniken, Bruce — 2014
Fleming, W.S.—1991
Fly, M.W.—2012
Fogelman, S.R.—1981
Fox, J.H.—1965
Francisco, P. — 2018
Frankfurt, W.W.—1977
Freeman, G.A.—1983
Friberg, E.E.—1983
Friedman, D.—1982
Friedman, G.—2012
Gabrielsson, J.E.—1984
Gage, Cynthia — 2006
Galson, E.L.—1988
Ganta, Ravisanlar—2014
Garbarino, A. — 2005
Gardner, M.D.—1997
Garrett, F.T.—1992
Gates, A.S., Jr.—1966
Gatley, D.P.—1984
Gendler, G.L.—1973
Gerstler, W.D.—2015
Ghostch, D.—2017
Gilbertson, T.A.—1991
Gilbo, C.F.—1991
Gimlore, C.F.—1996
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Gipson, D.W.—1990
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Goodman, H.D.—1989
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Goswami, D.Y.—2013
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Grasso, M.—2007
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Gupton, G.W., Jr.—1981
Gusler, D.L.—1972
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Haag, W.L.—1999
Haberl, J. S. — 2006
Hadley, L.G.—1984
Haghighat, F.—2007
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Hallstrom, A.D.—2000
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Hensen, J.L.M.—2007
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Hill, J.E.—1992
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Hittle, D.C.—1991
Hing, H.C.—1995
Hogeling, J.J.—2010
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Holste, F.R.—1983
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Horstman, R.H.—2012
Horvay, J.B.—1977
Hosni, M.H.—2005
Hourahan, G.C.—2009
Houston, S.H.—1998
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Hu, Y.R.—2005
Hubard, B.—1988
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Hughes, D.—2008
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Irwin, A.A.—2018
 JACKS, G.A.—1993
Jacobi, A.M.—2009
Jain, P.C.—1995
Jang, J. Y.—2006
Jarik, G.J.—1977
Jarnagin, R. — 2017
Jensen, R.E.—1993
Jensen, R.N.—1981
Jia, S.—2017
Jimenez-Segovia, M.—2015
Johnson, G.E.—1991
Johnson, R.M.—1996
Jones, B.W.—2000
Jones, J.W.—1989
Jones, R.R.—1977
Jordan, R.C.—1959
Jorgensen, R.—1977
Kadaba, P.V.—1993
Kamm, J.—2018
Kampmeyer, J.E.—1997
Kanan, K. S. — 2006
Katiapamula, S.—2009
Kato, S. —2007
Kavanaugh, S.2003
Kazachki, G.—2003
Keeler, R.M.—2010
Keen, J. — 2016
Keller, G.M.—1987
Kelley, W.—2000
ANDREW T. BOGGS SERVICE AWARD

Established in 1986, this award annually recognizes a past recipient of the Exceptional Service Award for continuing unselfish, dedicated, and distinguished work on behalf of the Society. The award honors Andrew T. Boggs, ASHRAE Executive Vice President Emeritus, for his 30 years of outstanding service and leadership. The award consists of a plaque with a medallion.

1987........Frederick J. Reed
1988........Sam P. Soling
1989........Hans O. Spauschus
1990........Morris L. Markel
1991........Preston E. McNall, Jr.
1992........Frank H. Faust
1993...........William J. Collins, Jr.
1994...........Thomas J. White
1995........Richard P. Perry
1996........Louis F. Flagg
1998........Kenneth W. Wicks
1999........Donald E. Nichols

2000........David S. Butler, Sr.
2001........Ross F. Meriwether
2002........William J. Coad

2003........George A. Jackins
2004..........(No Award given)
2005..........(No Award given)
2006..........(No Award given)
2007..........(No Award given)
2008..........Donald G. Rich
2009..........Laurence S. Staples
2010..........Donald G. Colliver
2011..........Richard Hayter

Honors and Awards Committee
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ASHRAE-ALCO MEDAL FOR DISTINGUISHED PUBLIC SERVICE

Established in 1965 by Presidential Member John E. Dube and sponsored by the Alco Valve Company, this award recognizes a member of the Society who has performed outstanding public service in their community, and in doing so, has helped to improve the public image of the engineer. The award consists of a plaque with a medallion.

1965.....................................Albert J. Nesbitt
1968.............................................W.L. Davis
1969..........................................George A. Linskie
1970........................................Carlyle M. Ashley
1971.......................................Harry E. Bovay, Jr.
1972.......................................Robert W. Flanagan
1973........................................Bruce L. Evans
1974.....................................George B. Hightower
1975......................................Earle K. Wagner
1976......................................Alwin B. Newton
1978.....................................Cullen E. Parmeleee
1979.....................................Henry J. Campbell, Jr.
1980.....................................Howell E. Adams, Jr.
1982.....................................Warren G. Moses
1983.....................................William W. Gay, Sr.
1985.....................................Realto E. Cherne
1986....................................Otto A. Tenant
1987.....................................Joseph S. Kearney, Sr.
1988.....................................Howard O. Ward
1989.....................................John F. Germ

1990.....................................John I. Levenhagen
1991.....................................Ellsworth F. Cassing
1992.....................................Kenneth W. Wicks
1993.....................................William P. Chapman
1994.....................................Carl J. Opatny
1995.....................................John H. Stanley
1996.....................................Harry M. Will
1997.....................................(No award given)
1998.....................................William S. Bodinus
1999.....................................Evans J. Lizardos
2000.....................................Jerry G. Bartos
2001.....................................(No award given)
2002.....................................Richard B. Hayter
2003.....................................Eugene Stamper
2004.....................................Richard F. Vermillion
2005.....................................Laurance Staples, Jr.
2006.....................................Alfred Greenberg
2007.....................................David McKenney
2008.....................................Clark W. Bullard

ASHRAE AWARD FOR DISTINGUISHED PUBLIC SERVICE

In 2008 the ASHRAE-Alco Award for Distinguished Public Service was renamed the ASHRAE Award for Distinguished Public Service. This award recognizes a member of the Society who has performed outstanding public service in their community, and in doing so, has helped to improve the public image of the engineer. The award consists of a plaque with a medallion.

Kenneth M. Fulk ........................................2009
No Award Given ........................................2010
No Award Given ........................................2011
No Award Given ........................................2012
Harold Lewis ........................................2013
Jeff Gatlin ..........................................2014
William Sigman ......................................2015
Erich Binder ........................................2016
No Award Given ........................................2017
No Award Given ........................................2018
Patricia Graef ..........................................2019
E.K. CAMPBELL AWARD OF MERIT

The E.K. Campbell Award of Merit is presented by the Life Members Club to honor outstanding service and achievement in teaching. The award consists of a $10,000 honorarium and a plaque.

1958....................................... Lynn Helander
1959....................................... Dean Merl Baker
1960....................................... Lester S. O’Bannon
1961....................................... Burgess H. Jennings
1963....................................... Maurice K. Fahnstock
1964....................................... Carl F. Kayan
1965....................................... C.O. Mackey
1966....................................... Richard C. Jordan
1967....................................... S. Konzo
1968....................................... Walter O. Walker
1969 ....................................... B.H. Spurlock, Jr.
1970....................................... John Everetts, Jr.
1971....................................... James M. McGrath
1972....................................... Jack B. Chaddock
1973....................................... Wilbert F. Stoecker
1974....................................... Ralph G. Nevis
1975....................................... Herbert B. Nottage
1976....................................... John F. Sandfort
1977....................................... Rodney G. Keif
1978....................................... Stanley F. Gilman
1979....................................... Donald C. Bryant, Sr.
1980....................................... F.C. Hooper
1981....................................... William F. Rudoy
1982....................................... Raymond Cohen
1983....................................... Harry J. Sauer, Jr.
1984....................................... Burgess H. Jennings
1985....................................... Charles F. Sepsy
1986....................................... Faye C. McQuiston
1987....................................... Victor W. Goldschmidt
1988....................................... Stanley A. Mumma
1989 ....................................... William J. Wepfer
1990....................................... David J. Wilson
1991....................................... James C.S. Chou
1992....................................... Jan F. Kreider
1993....................................... J. Ben Austin
1994....................................... Gordon M. Reistad
1995....................................... Joseph B. Olivieri
1996....................................... David A. Didion
1997....................................... S.A. Sherif
1998....................................... David E. Claridge
1999....................................... Margaret S. Drake
2000....................................... Timothy G. Wentz
2001....................................... David R. Tree
2002....................................... Bransilav Todorovic
2003....................................... Harmohindar Singh
2004....................................... Anthony Jacobi
2005....................................... James E. Braun
2006....................................... Ronald H. Howell
2007....................................... Eckhard A. Groll
2008....................................... Wayne A. Helmer
2009....................................... Judi Steciak
2010....................................... Michal Bernier
2011....................................... Jeffrey D. Spitler
2012....................................... Charles “Charlie” Culp
2013....................................... Michael Ohadi
2014....................................... No Award Given
2015....................................... Bill Gates
2016....................................... Michael Ohadi
2017....................................... Thomas H. Kuehn
2018....................................... Julia A. Keen
2019....................................... William P. Bahnfleth

ASHRAE HONORARY MEMBERS

Honorary Members are elected by the Board of Directors and are defined as notable persons of preeminent professional distinction. The award consists of a plaque with a medallion.

Allen V. Astin ........................................... 1969  
L.M.K. Boelter ........................................... 1966  
Andrew T. Boggs ....................................... 1985  
Milton S. Eisenhower ................................. 1956  
Crosby Field............................................. 1951  
A.C. Fieldner ........................................... 1944  
Henry V. Heuser ....................................... 1995  
Herbert C. Hoover ................................. 1956  
F.G. Keyes............................................. 1936  
W.H. McAdams ......................................... 1963  
Albert J. Nesbitt ..................................... 1972  
Stefano Marino ........................................ 2015  
Peter A. Hancock ................................... 2016  
Terry M. Manon ....................................... 2016  
Stephen T. Ayers ................................... 2017  
No Award Given ...................................... 2018  
Bill Gates.............................................. 2019  

DISTINGUISHED 50-YEAR MEMBER AWARD
Established in 1967, this award recognizes individuals who have been ASHRAE members for a minimum of 50 years, were a Past Society President, a Fellow, recipient of the Distinguished Service Award, or otherwise performed outstanding service for the Society. The award consists of a plaque and lapel pin.

Abedin, Ainul..................................................2019
Achenbach, Paul R...........................................1992
Adams, Ludwig.............................................1994
Akerman, Joseph R........................................1996
Algie, Wallace L.............................................1999
Altieri, John L.................................................2003
Aumann, Willard L........................................2002
Anderson, Philip P., Jr.....................................1996
Angus, Donald L...............................................1996
Appleby, Loran V..........................................2002
Arrington, Richard M.................................1983
Ashley, Carlyle M...........................................1981
Asker, Gunnar C F........................................1998
Atwood, Theodore........................................2004
Avery, G..................................................2006
Ayres, J. Marx............................................1996
Azer, Naim..................................................2018
Baade, Peter K...............................................2000
Bahnfleth, Donald R........................................2004
Barbier, William...........................................2007
Barker, Perley K.............................................1996
Barnard, Lloyd.................................................2009
Basso, Peter J................................................2008
Batherman, Richard E......................................2008
Bathgate, Thomas...........................................2018
Baum, Albert L..............................................1967
Baum, Richard T ...........................................2004
Behls, Herman F...........................................2016
Bendelius, Arthur G........................................2015
Bennett, Arthur H..........................................2013
Benz, Donald L...............................................1999
Bergdoll, John G.............................................1974
Bertrand, Luc................................................2017
Bevirts, W. David.........................................1999
Bishop, Marion W.........................................1985
Bishop, Walter P.............................................2013
Blackmore, Joseph C........................................1986
Blankin, Merrill.............................................1969
Blazier, Warren E..........................................2008
Bodin, William S...........................................1991
Boehmer, Andrew P........................................1985
Boggs, Andrew.............................................2001
Boling, Cecil..................................................1986
Bottum, E.W................................................1988
Bourquin, Paul A.............................................1999
Boway, Harry E, Jr.........................................1996
Boyd, Robert L...............................................1991
Boyd, Spencer W...........................................1986
Braun, Robert H.............................................2008
Bridge, Frank H.............................................1997
Briley, George C...........................................2003
Brink, Laurence K.........................................2013
Britton, Paul E...............................................2005
Brown, Floyd L.............................................2013
Brown, Leonard N.........................................1999
Brown, Seymour W........................................1993
Bruechert, Carl J...........................................2002
Bryan, William L...........................................1992
Buckley, Jack B.............................................1998
Buckley, Norman A.........................................1996
Buckmaster, C. Roger.................................2003
Buehler, Leon.................................................1974
Bullock, Charles E..........................................2016
Burdick, Robert S...........................................2015
Burkhardt, Robert G.......................................2005
Burr, Griffith C, Jr.........................................2010
Burroughs, Barney.........................................2018
Butler, Perc M.................................................1999
Buzzard, Francis H.........................................1989
Caffrey, Ronald J...........................................2013
Campbell, George S........................................1986
Carroll, J. Raymond.......................................1996
Carscallen, George F.......................................2010
Carter, Franklyn Y..........................................1993
Carter, Hugh C.................................................2007
Chaddock, Jack B...........................................2002
Chapman, William P.......................................1998
Charles, Richard A.........................................2012
Chato, John..................................................2009
Chenault, Charles V.......................................1999
Chen, Hung C................................................2019
Cherne, Realeo E...........................................1979
Chewing, Ray C.............................................1995
Christensen, Paul B.......................................1986
Clark, Kenneth.............................................2018
Clarke, John H...............................................1991
Clements, Waller S........................................2013
Cloke, J., Thomas H........................................2003
Cohen, Raymond...........................................2017
Cohen, Walter...............................................2010
Colborne, William G.....................................2003
Colen, Harold R.............................................2000
Collins, Jr., William J....................................1999
Conley, Harry E.............................................2004
Conrad, Paul R..............................................2019
Cooper, D.S.................................................1988
Cooper, William S........................................2002
Copeland, Charles.......................................2019
Copeland, John E..........................................2005
Costantino, Mario..........................................2012
Coughlin, Robert J..........................................2007
Cox, William A., Jr.......................................1996
Crider, Thomas G...........................................1985
Cross, Robert B., Jr.......................................1996
Crosland, Robert B.........................................2019
Cross, Robert C.............................................1986
Cumming, Robert W.......................................1978
Daly, Edward.................................................2009
Davidson, Lindell A.....................................2014
Davis, Willard J.............................................2003
Day, Vincent S...............................................1976
Dean, Bob W.................................................1999

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**EXCEPTIONAL SERVICE AWARD**

Established in 1998, this award recognizes members who have served the Society faithfully and with exemplary effort, in excess of that required for the Distinguished Service Award (45 service points are required). The award consists of a plaque and lapel pin.

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DISTINGUISHED SERVICE AWARD

Established in 1962, this award recognizes members who have served ASHRAE faithfully and with distinction on committees or otherwise giving freely of their time and talent on behalf of the Society (15 service points are required). The award consists of a plaque and lapel pin.

Abdelaziz, O. — 2016
Abedini, A. — 2012
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Abramson, D.S. — 2013
Abushakra, Bass — 2010
Achenbach, P.R. — 1967
Adams, E. — 2017
Agopian, N. — 2017
Aguilo, R.R. — 2010
Albern, W.F. — 1993
Albrecht, R. — 2015
Albright, D.C. — 1972
Alfonso, G. – 2019
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Allen, D.M. — 1966
Allen, M.W. — 2000
Alvine, R.G. — 1985

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Phillips, T.J.—1968
Phoenix, T.H.—1996
Pierce, J.D.—1981
Pietsch, J.A.—1994
Platt, H. —2016
Pons, R. —2008
Porter, J.M.—1996
Poston, I.G. —2005
Pouchak, M. A. —2017
Powell, F.J.—1982
Prather, D. – 2019
Price, G.– 2018
Priester, G.B.—1968
Procoll, C.J.—1995
Radermacher, R.—2002
Rakheja, A. —2015
Ramsey, M.A.—1966
Randolph, C.H.—1976
Rasmussen, D.W. —2013
Reddy, A. —2008
Reed, F.J.—1963
Reedy, W. – 2009
Reich, H.H.—1984
Reichert, I. —2017
Reid, D.W.—1996
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Reihl, K. —2019
Reinsarts, T. —2005
Reindl, D.T. —2006
Reistad, G.M.—1991
Reynolds, B. —2015
Riback, L. —2017
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Rishel, J.B. —1998
Ridley, R. —2008
Ried, J.F. —2008
Rogers, D. —2016
Rohles, F.H., Jr.—2000
Romero, R. —2019
Romine, T.B., Jr.—1993
Rooley, R.H.—1991
Rosen, R.M. —2017
Roriasis, S. —2014
Ross, J.H.—1968
Rottman, G.B.—1965
Rountree, H.E.—1989
Ryan, H.J.—1970
Ryan, W. —2017
Sachs, H.M. —2013
Sainsbury, G.F.—1976
Sanchez, A.J.—1994
Sandfort, J.F.—1971
Sanvordenker, K.S.—1979
Sauer, H.J., Jr.—1981
Schambach, F.H.—2003
Schenk, J.A.—1963
Schlentner, K.O.—1970
Schmidt, W.A.—1977
Schoen, L.J. —2013
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Schreiner, R.C. —2013
Schreiner, J.R.—1969
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Schumacher, E.W.—2007
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Schenker, E.H.—1993
Seelaus, J.J.—1976
Segal, S.C.—1963
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Seth, A.K. —2016
Setty, B.S. —2014
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Shah, M.M. —2003
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Somasundaram, S. —2006
Sonderegerg, R. —2016
Sosoka, J.R.—1998
Soumeral, H.P.—1969
Spangler, J.T., Jr.—1980
Spauschus, H.D.—1971
Speich, C.F.—1985
Spence, R.A. —2014
Spencer, S.A.—1965
Spovak, F. —2008
Spiegel, W.F.—1983
Spievogel, L.G.—1975
Spitzer, J.D.—2000
Spofford, W.A.—1973
Spurlock, B.H.—1970
Srebic, J.—2007
Staelber, L.A.—1967
Stambaugh, L.P.—1994
Stamper, E.—1985
Stanke, D. —2014
Stanley, J.H. —2001
Staples, L.S.—1989
Starner, K.E.—1992
Stenger, H.G.—1982
Stern, R.M.—1971
Stethem, W.C.—1984
Stoecker, W.F.—1976
Stone, D.T.—1994
Stotz, R.B.—1999
Stover, R.S.—1969
Strahan, E.K.—1970
Straub, H.E.—1973
Strong, H.G.—1963
Strong, R.H.—1998
Stuber, R.J. —2017
Sturm, E. —2019
Subberwal, B. —2016
Sud, I. —2003
Sultan, Z. M. —2017
Sun, L.—2011
Sun, W. —2019
Sundaresan, G.—1995
Supple, R.G.—1987
Swatkowski, L. —2017
Swenson, C.A.—1985
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<td>Clint D. Miller</td>
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**LINCOLN BOUILLON MEMBERSHIP AWARD**

Established in 1967 to commemorate the late Presidential Member Lincoln Bouillon’s effort in recruiting new members, this award is presented annually to the individual who performs the most outstanding work in increasing the membership of the Society during the course of the year. The award consists of a plaque and lapel pin.

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<td>Sam R. Fogleman</td>
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1973.............................. John F. Collins
1974.............................. John R. Pate
1975.............................. Robert C. Mackay
1976.............................. Jay N. Nelson
1977.............................. Edward M. Naretto
1978.............................. Oliver K. Lewis
1979.............................. Lewis E. Seagraves
1980.............................. Gerald F. Morrow
1981.............................. Frederick E. Stone
1982.............................. G. Allan Gaboric
1983.............................. Lynn G. Bellenger
1984.............................. Thomas A. Gorman III
1985.............................. Craig M. Goodenow
1985.............................. Kevin Y.F. Chong
1986.............................. Ross D. Montgomery
1987.............................. William C. Bissmeyer II
1988.............................. Louis E. Soltys
1989.............................. John P. Gratiot
1990.............................. Dean S. Borges
1991.............................. Francis D. Frudd
1992.............................. James E. Harrison
1993.............................. Robert B. Stotz
1994.............................. Edwin L. Dalpiaz
1995.............................. Lisa Ann Duritsch

1996.............................. James M. Poole
1997.............................. Wayne M. Hydeman
1998.............................. Dan P. Cason
1999.............................. Paul T. Novak
2000.............................. Chad L. Edmondson
2001.............................. David R. Dinse
2002.............................. Raymond J. Forsthoefer
2003.............................. Brian M. Tanner
2004.............................. Madan M. Pande
2005.............................. Matthew J. Armey
2006.............................. Holly Townes
2007.............................. No Award Given
2008.............................. Alan Neely
2009.............................. Michelle Swanson
2010.............................. Rajnish Joshi
2011.............................. G. Ramesh Kumar
2012.............................. David B. Farala
2013.............................. George M. Waters, Sr.
2014.............................. Ezekiel A. Bakare
2015.............................. Gregory A. Schnable
2016.............................. Jessica Mangler
2017.............................. Jason Urso
2018.............................. Oscar Eduardo Ricaño
2019.............................. Carlos Arguijo

WILLIAM J. COLLINS, JR. RP AWARD

Established in 1985, this award honors the Chapter RP Chair who excels in raising funds for ASHRAE’s RP Campaign. The award consists of a plaque with a medallion and a lapel pin.

1985.............................. Ralph M. Mattison
1986.............................. Bob A. McAlister
1987.............................. Herbert L. Bregman
1988.............................. Robert P. Barschel
1989.............................. Ronald W. Keller
1990.............................. Robert J. Meredith
1991.............................. Jeffrey D. Brouillette
1992.............................. A. Timothy Waugh
1993.............................. James M. Porter
1994.............................. Tom A. Willis
1995.............................. Tony Moore
1996.............................. Roger W. Dieffenbach
1997.............................. T. Randall Jones
1998.............................. Jitendra T. Shah
1999.............................. Spencer N. McDonald
2000.............................. Allan Bruns
2001.............................. Eric T. Jenison
2002.............................. Timothy B. Boyles

2003.............................. Michael B. Balko
2004.............................. Mike Middleton
2005.............................. T. David Underwood
2006.............................. Rick Sellers
2007.............................. Brian Hamilton
2008.............................. John Sealy
2009.............................. Rob Craddock
2010.............................. Bobby Vermillion
2011.............................. George “Billy” Austin, Jr.
2012.............................. Nicolas Lemire
2013.............................. Christopher M. Donovan
2014.............................. Ken Stoppel
2015.............................. Robert Kunkel
2016.............................. Kimberly Thompson
2017.............................. Patrick Huang
2018.............................. Adam Graham
2019.............................. Daniel Redmond

HOMER ADDAMS AWARD

Established in 1956 to perpetuate the memory of Homer Addams, Charter Member and Past President of ASHVE, this award recognizes a graduate student who has been engaged in an ASHRAE research project. The award consists of a $5,000 honorarium, a plaque, and lapel pin.

1957 Paul M. Chung; University of Minnesota
1958 W.E. Springer; University of Illinois
1959 John Y. Payton; University of California
1960 Frank D. Farrington; University of Arizona

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1961 Alan B. Wagner; Case Institute of Technology
1962 Albert C. Kent; Kansas State University
1963 John M. Craig; University of Florida
1964 Joseph R. Gartner; University of Wisconsin
1965 Isaiah Kopelman; Michigan State University
1966 Eugene R. Michaud; Purdue University
1967 Norman G. Ziesse; Carnegie Institute of Technology
1968 Jon M. Rueck; Kansas State University
1969 James E. Shahan; University of Illinois
1970 Raymond E. Knotts; Ohio State University
1971 Donald R. Witt; Pennsylvania State University
1972 Thomas E. Bursey; University of Saskatoon
1973 Edward C. Skuchas; Duke University
1974 Fernando Duran; University of Pittsburgh
1975 Douglas C. Hamilton; Purdue University
1976 Kevin F. O’Brien; Oklahoma State University
1977 Douglas R. Bryant; University of Manitoba
1978 Sriram Somasundaram; Case Western Reserve University
1979 Gary L. Reynolds; Iowa State University
1980 Joseph P. Olivieri; Lawrence Institute of Technology
1981 Charles F. Rhein; University of Missouri-Rolla
1982 Shimai No; Concordia University
1983 Mean Shang Chen; Kansas State University
1984 Michael S. Sherber; Georgia Institute of Technology
1985 Steven M. Harris; Oklahoma State University
1986 Polyxious Eleftheriou; Tenn. Technological University
1987 James J. Baustian; Iowa State University
1988 John S. Schliesing; Texas A&M University
1989 Marc E. Fountain; University of California-Berkeley

RALPH G. NEVINS PHYSIOLOGY AND HUMAN ENVIRONMENT AWARD

Established in 1978, this award is presented annually to a promising investigator for significant accomplishment in the general area of man’s response to the environment, which may include thermal, moisture, visual, acoustical, toxic, allergic, olfactory, vibrational, and microbiological effects on man’s health, comfort, and well-being. The award consists of a plaque and lapel pin.

1978.........................James E. Woods
1979.........................Larry G. Berglund
1980.........................Yasunobi Nishi
1981.........................Donald A. McIntyre
1982.........................Bjarne W. Olesen
1983.........................Richard R. Gonzalez
1984.........................Deanna M. Munson
1985.........................Elizabeth McCullough
1986.........................Lars Molhave
1987.........................Richard B. Hayter
1988.........................Byron W. Jones
1989.........................Gail Ellen Schiller
1990.........................Shin-ichi Tanabe
1991.........................Geo Henrik Clausen
1992.........................Kenneth C. Parsons

1990..............................Ralph M. Diguilio; Georgia Institute of Technology
1991..............................S. Imam Haider; Pennsylvania State University
1992..............................Ernesto Embraz-Santander; University of Florida
1993..............................Zhenhai Li; University of Illinois
1994..............................Brian A. Fricke; University of Missouri
1995..............................Marianna Luoma; University of Michigan
1996..............................Donald J. Wolfe; University of Kansas
1997..............................Jeanne M. De Greef; Kansas State University
1998..............................James E. Bryan; Texas A&M University
1999..............................Jafar Darabi; University of Maryland
2000..............................William D. Gerster; University of Minnesota
2001..............................Jelena Srebric; MIT
2002..............................Marija Radoweic; Danish Technological Institute
2003..............................No award given
2004..............................Shehab Ahmad; Texas A&M University
2005..............................Dongyi Xiao; Oklahoma State University
2006..............................Pankaj Hande; University of Missouri-Rolla
2007..............................No award given
2008..............................Bereket Nigusse; Oklahoma State University
2009..............................No award given
2010..............................Nathan Koye; University of Waterloo
2011..............................Sebastian Herman; University of Rostock
2012..............................Harrison M. Skye; University of Wisconsin-Madison
2013..............................Ricardo J. Da Silva Lima; École Polytechnique Fédérale de Lausanne
2014..............................Ryan Tanner; University of Colorado – Boulder
2015..............................Limin Zhou; University of Kentucky
2016..............................No Award Given
2017..............................Parham Azimi; University of Illinois
2018..............................Aliresa Behfar; University of Nebraska-Lincoln
2019..............................Omer Sarfraz; Oklahoma State University

1993..............................Richard J. De Dear
1994..............................Amanda K. Meitz
1995..............................Marc E. Fountain
1996..............................William J. Fisk
1997..............................Clifford C. Federspiel
1999..............................Jorn Toftum
2000..............................Lei Fang
2001..............................Jerry M. Sipes
2002..............................Pawel Wargocki
2003..............................Yanzheng Guan
2004..............................Zhang Hui
2005..............................Christopher Chao
2006..............................no award given
2007..............................Charlie Huizenga
2008..............................Henry C. Willem

Honors and Awards Committee
Reference Manual (February 2019)
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<td>Dusan Licina</td>
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<td>2019</td>
<td>Bin Cao</td>
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**JOHN F. JAMES INTERNATIONAL AWARD**

Established in 1983, this award recognizes ASHRAE members who have done the most to enhance the international presence of the Society. The award consists of a plaque and lapel pin.

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<td>P. Ole Fanger</td>
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<td>Wilbert F. Stoecker</td>
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<td>Raymond Cohen</td>
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<td>Richard Rooley</td>
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<td>Mario Costantino</td>
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<td>David Rickelton</td>
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<td>Alvaro Tapias</td>
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<td>Murray G. Thurston</td>
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<td>Branislav B. Todorovic</td>
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<td>John F. James</td>
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<td>Victor W. Goldschmidt</td>
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<td>Gunther M. Keller</td>
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<td>Horst H. Kruse</td>
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<td>Ashok K. Virmani</td>
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<td>Moustafa M. Elsayed</td>
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<td>Constantinios A. Balaras</td>
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<td>Walid Chakroun</td>
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<td>Leo P. Stambaugh</td>
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<td>Timothy C. Dwyer</td>
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<td>Stephen C. Gill</td>
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**MILTON W. GARLAND COMMEMORATIVE REFRIGERATION AWARD FOR PROJECT EXCELLENCE**

Established in 1990, this award recognizes a non-comfort cooling refrigeration application which highlights innovation and/or new technologies. The award consists of a plaque with a medallion and a lapel pin.

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<td>1991</td>
<td>Arthur P. Garbarino, Gulfstream Chapter</td>
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<td>Howard M. Webb, Hampton Roads Chapter</td>
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<td>Eric C. Davis, Northeast Chapter</td>
</tr>
<tr>
<td>1994</td>
<td>Gary W. James, Central Oklahoma Chapter</td>
</tr>
<tr>
<td>1995</td>
<td>Jason Grabowski, Southwest Florida Chapter</td>
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<tr>
<td>1996</td>
<td>Eric Prive, North Piedmont Chapter</td>
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<tr>
<td>1997</td>
<td>James L. Carver, Hampton Roads Chapter</td>
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<tr>
<td>1998</td>
<td>Teddy S. Hansen, Florida West Coast Chapter</td>
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<td>1999</td>
<td>Teddy S. Hansen, Florida West Coast Chapter</td>
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<td>2000</td>
<td>Teddy S. Hansen, Florida West Coast Chapter</td>
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<tr>
<td>2001</td>
<td>Glenn Friedman, Golden Gate Chapter</td>
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<tr>
<td>2002</td>
<td>John Sanchez, Jr., Illinois Chapter</td>
</tr>
<tr>
<td>2003</td>
<td>(No award given)</td>
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<tr>
<td>2004</td>
<td>William Weinaug and Wade Conlan, Central Florida Chapter</td>
</tr>
<tr>
<td>2005</td>
<td>(No award given)</td>
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<td>2006</td>
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<td>2007</td>
<td>(No award given)</td>
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<td>2008</td>
<td>(No award given)</td>
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<tr>
<td>2009</td>
<td>Cesar Luis dL. Lim, Philippines Chapter</td>
</tr>
<tr>
<td>2010</td>
<td>Tom Dosch</td>
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<tr>
<td>2011</td>
<td>John Bittner, Atlanta Chapter</td>
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<tr>
<td>2012</td>
<td>(No award given)</td>
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<tr>
<td>2013</td>
<td>Cameron E. Lowry, British Columbia Chapter</td>
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<tr>
<td>2014</td>
<td>(No award given)</td>
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<tr>
<td>2015</td>
<td>(No award given)</td>
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<tr>
<td>2016</td>
<td>Claude Dumas, Montreal Chapter</td>
</tr>
<tr>
<td>2017</td>
<td>(No award given)</td>
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<tr>
<td>2018</td>
<td>(No award given)</td>
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</tbody>
</table>
STANDARDS ACHIEVEMENT AWARD

Established in 1995, this award recognizes excellence in volunteer service for developing ASHRAE standards/guidelines. The award consists of a plaque and lapel pin.

1995.........................Michael Martin
1996............John I. Woodworth/Robert E. Cook
1997................. George S. Yamamoto
1998.........................Jim L. Heldenbrand
1999.......................... Robert H. Bushnell
2000 .......................(No award given.)
2001 .......................(No award given.)
2002 .........................Martha J. Hewett
2003..................................(No award given)
2004........Andrew Persily and Thomas Watson
2005......................H. Michael Newman
2006.........................(No award given)
2007.............................P. Ole Fanger
2008..............................Byron Jones
2009............................ Charles Dorgan
2010...........................Dennis Stanke
2011............................Michael Schwedler
2012..........................Steven T. Taylor
2013............................Martha G. VanGeem
2014..........................Max H. Sherman
2015............................(No award given)
2016............................Jerry Sipes
2017............................Steven Bushby
2018............................Gerald Kettler
2019............................Richard Hall

CROSBY FIELD AWARD

Established in 1973, the Crosby Field Award was named for a former ASHRAE President. This award is for the highest rated paper presented at a Technical Session or Symposium for the year. The award consists of a $750 honorarium and plaque.

1974  Paul R. DeCicco and Robert J. Cresci  
“Smoke and Fire Control in High-Rise Office Buildings”

1975  Herbert P. Becker,  

1976  J.E. Hill and T. Kusuda  
“Dynamic Characteristics of Air Infiltration”

1977  Clayton A. Morrison, James M. Wheeler, Jr., and Erich A. Farber  
“An Experimental Determination of Shading Coefficients for Selected Insulating Reflective Glasses and Draperies”

1978  William Rudoy and L.M. Robins  
“Comparison of Cooling Load Calculation”

1979  Istvan L. Ver,  
“A Review of the Attenuation of Sound in Straight Lined and Unlined Ductwork of Rectangular Cross Section”

1980  George T. Tamura  
“The Calculation of House Infiltration Rates”

1981  Lawrence G. Spielvogel  
“The Solar Bottom Line”

1982  Warren E. Blazier, Jr.  
“Revised Noise Criteria for Design and Rating of HVAC Systems”

1983  Robert D. Fischer, Lawrence J. Flanigan, Sherwood G. Talbert, and Daniel A. Jaffee  
“Degree Days Method for Simplified Energy Analysis”

1984  Brian P. Leaderer and William S. Cain  
“Air Quality in Buildings During Smoking and Nonsmoking Occupancy”

1985  D.W. DeWerth, S.G. Talbert, S.M. Sobieski, and D.D. Paul,  
“Vent Capacity Data for High Efficiency, Condensing-Type, Gas-Fired Appliances”

1986  William J. Coad  
“Variable Flow in Hydronic Systems for Improved Stability, Simplicity and Energy Economics”
<table>
<thead>
<tr>
<th>Year</th>
<th>Author(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>Milton Meckler</td>
<td>“Computer Analysis of Smoke Transport During Hotel Fire”</td>
</tr>
<tr>
<td>1991</td>
<td>Emil E. Friberg</td>
<td>“Central Heating and Cooling Plant Economics for the College Campus”</td>
</tr>
<tr>
<td>1993</td>
<td>Nancy J. Banks</td>
<td>“Field Test of a Desiccant-Based HVAC System for Hotels”</td>
</tr>
<tr>
<td>1999</td>
<td>Richard J. deDear and Gail Schiller Brager</td>
<td>“Developing an Adaptive Model of Thermal Comfort and Preference”</td>
</tr>
<tr>
<td>2002</td>
<td>Jim L. Heldenbrand</td>
<td>“NBS Research and ASHRAE’s 90 Series Standards”</td>
</tr>
<tr>
<td>2003</td>
<td>Paul L. Riemer, John W. Mitchell, and William A. Beckman</td>
<td>“The Use of Time Series Analysis in Fault Detection and Diagnosis Methodologies”</td>
</tr>
<tr>
<td>2004</td>
<td>William J. Rahmeyer</td>
<td>“Pressure Loss for PVC Pipe Tees”</td>
</tr>
<tr>
<td>2006</td>
<td>Sang-Min Lee and Jin-Won Lee</td>
<td>“A New Local Ventilation System Using a Vortex Flow Generated with a Finned Rotating Annular Disk”</td>
</tr>
</tbody>
</table>
2008 Francis M. Farrell, Thomas M. Fitch, and Michael J. Morgan
“Development ad Performance of a Retrofittable, High-Efficiency, Grease Filter System for Kitchen Hoods”
2008 Kee-Chiang Chung, Ph.D., Tsai Kuo-Pao, and You-Hsuan Wang
“Performance of Local Ventilated Hood 1: A General Ventilation Working Environment”
2009 Jelena Srebric, Ph.D. and Paulo Cesar Taberes Velasco, Ph.D.
“The Role of Plants in the Reduction of Heat Flux Through Green Roofs: Laboratory Experiments”
2010 Jeffrey D. Spitler, Ph.D., P.E. and Bereket A. Nigusse, Ph.D.
“Refinements and Improvements to the Radiant Time Series Method”
2011 Jacob L. Edmondson, Dennis L. O’Neal, Ph.D., PE, John A. Bryant, PhD, PE, and Michael A. Davis, Ph.D.
“Performance of Series Fan-Powered Terminal Units with Electronically Commutated Motors”
2012 John A. Bryant, Ph.D, P.E., Michael A. Davis, Ph.D, and Dennis L. O’Neal, Ph.D, P.E.
“Modeling the Performance of ECM and SCR Parallel Fan-Powered Terminal Units in Single-Duct VAV Systems”
2013 James W. VanGilder, P.E., Christopher M. Healey, Ph.D., Zachary M. Pardey, and Xuanhang Zhang
“A Compact Server Model for Transient Data Center Simulations”
2014 Didier Thevenard, PhD, PEng; Mark W. Shephard
2015 John A. Shonder; Cyrus Nasseri
“Achieving Deeper Energy Savings in Federal Energy Performance Contracts”
2016 Stephen Kujak and Edward M. Hamilton
“Examination of the Reactions of R-40 with R-134a and POE Refrigeration System Materials”
2017 Michael Roth
“Updating the ASHRAE Climate Design Data for 2017”
2018 Amy Van Asselt, Douglas T. Reindl, Ph.D., P.E., and Gregory F. Nellis
“Strategies to Increase Deployment of Renewables Using Cool Thermal Energy Storage”

LOU FLAGG HISTORICAL AWARD

This award recognizes a Chapter Gold Ribbon Award winner for compiling information on outstanding historical projects or persons related to HVAC&R industry. The award consists of a plaque and lapel pin.

2002 John Gladstone
2003 James M. Ritter
2004 Morgan Jones
2005 James M. Ritter
2006 Michael Meteyer
2007 No Award Given
2008 Oswaldo Bueno
2009 Roderic S. Potter
2010 J. Blaine Walker, Jr.
2011 Robert Bean, Bjarne Olesen, and Kwang Woo Kim
2012 Philip C.H. Yu
2013 Alexander Weiss
2014 Bruce L. Flaniken
2015 No Award Given
2016 Faye C. McQuiston
2017 Charles Stoabs
2018 Bruce Flaniken
2019 Randy Schrecengost

Honors and Awards Committee
Reference Manual (February 2019)
**PAPER AWARD**

This award (Best Paper, Symposium Paper, Technical/Symposium Paper, Transactions Paper, and Technical Paper) recognizes the best papers presented at a Society meeting for the year. The award consists of a $500 honorarium and a plaque.

**1973 Best Paper Award**


Best Symposium Paper: P. R. DeCicco and R. J. Cresci “Smoke and Fire Control in High-Rise Office Buildings”

**1974 Best Paper Award**

Best Applications Technical Paper: Dean E. McFeron, Donald F. Owens, and John Ramsay for “Cooling Load Increases for Windows Adjacent to Large Water Surfaces”

Best Research Technical Paper: Ronald L. Dougherty and Harry J. Sauer, Jr. for “Nucleate Pool Boiling of Refrigerant-Oil Mixtures from Tubes”


**1975 Best Paper Award**


Best Research Technical Paper: Hoy R. Bohanon “Fan-Test Chamber Nozzle Coefficients”


Best Symposium Paper: Bayliss J. Erdelyi for “Test Results of a Ducted Stairwell Pressurization System in a High-Rise Building”

**1976 Best Paper Award**

Best Technical Papers: Professor Clayton A. Morrison, James M. Wheeler, Jr., and Dr. Erich A. Farber for “An Experimental Determination of Shading Coefficients for Selected Insulating Reflective Glasses and Draperies”

Theodore H. Benzinger, B. W. Mangum, and Dr. James E. Hill for “The Design, Construction and Operation of a Scanning Radiometer for Measurement of Plane Radiant Temperature in Buildings”


Carl D. Baird and Jerome J. Gaffney for “A Numerical Procedure for Calculating Heat Transfer in Bulk Loads of Fruits or Vegetables”
1977 Best Paper Award

Best Technical Papers: Professor William Rudoy and L. M. Robins for “Comparison of Cooling Load Calculations”

Professor William Rudoy and L. M. Robins for “Pulldown, Load Calculations and Thermal Storage During Temperature Drifts”

Professor Wilbert F. Stoecker for “Methodology of Simulating the Performance of a Central Chilled-Water System”

Best Symposium Papers: Bela G. Liptak for “Reducing the Operating Costs of Buildings by Use of Computers”

Durvasula V. Sriramamurty for “Application and Control of Commercial and Industrial Humidifiers”

1978 Best Paper Award

Best Technical Papers: George T. Tamura and Chia-Yu Shaw for “Experimental Studies of Mechanical Venting for Smoke Control in Tall Office Buildings”

Istvan L. Ver for “A Review of the Attenuation of Sound in Straight Lined and Unlined Ductwork of Rectangular Cross Section”

Professor Faye C. McQuiston for “Correlation of Heat, Mass and Momentum Transport Coefficients for Plate-Fin-Tube Heat Transfer Surfaces with Staggered Tubes”


1979 Best Paper Award

David J. Wilson for “Flow Patterns Over Flat-Roofed Buildings and Application to Exhaust Stack Design”


George T. Tamura for “The Calculation of House Infiltration Rates”

David T. Harrje, Gautam S. Dutt, and Jan E. Beyea for “Locating and Eliminating Obscure but Major Losses in Residential Housing”

1980 Best Paper Award

D. Paul Mehta and James E. Woods for “An Experimental Validation of a Radiant Model for Dynamic Responses of Buildings”

Donald J. Mosshart, Jr. for “A Contractor’s View of HVAC Noise and Vibration Problems”

Lewis S. Goodfriend for “Indoor Sound Rating Criteria”

Edward F. Sowell and George N. Walton for “Efficient Computation of Zone Loads”

1981 Best Paper Award


Best Symposium Papers: Deanna M. Munson for “The Effectiveness of Selecting Clothing for Comfort in the 18.3°C (65°F) Environment”


1982 Best Paper Award
Best Symposium Papers: David W. Low and Edward F. Sowell for “A Plan for Establishing Algorithms as ASHRAE Literature”

Craig D. Hollowell, Robert A. Young, James V. Berk, and Stephen R. Brown for “Energy Conserving Retrofits and Indoor Air Quality in Residential Housing”

John E. Janssen for “Application of Building Thermal Resistance Measurement Techniques”

1983 Best Paper Awards

Best Symposium Papers: Martin W. Liddament for “The Air Infiltration Center’s Program of Model Validation”

George T. Tamura for “Review of the DBR/NRC Studies on Control of Smoke from a Fire in High Buildings”


1984 Best Paper Award

Best Symposium Papers: R. E. Hough, A.L. Schuyler, and C. L. Reed for “Field Monitoring Results for Natural-Draft and Induced-Draft Gas-Fired Residential Furnaces”

L. J. O’Dell and S. V. Sheppard for “System Design Guide for Air Pollution Control Equipment”


1985 Best Paper Award


Frederick H. Rohles, Jr., Joseph E. Laviana, Richard A. Wruck, and Wei Runbai for “The Human Response to Temperature Drifts in a Simulated Office Environment”

1986 Best Paper Award

Best Technical Papers: Ronald H. Howell, Harry J. Sauer, Jr., and Ralph D. Lahmon for “Influence of Upstream Disturbances on Correlation Coefficient for Vane Anemometers at Coil Faces”

Nicholas Galanis and Richard Chatigny for “A Critical Review of the ASHRAE Solar Radiation Model”

Best Symposium Papers: Reino T. Huovilainen for “Study of the Application of Fluidized Bed Combustion”

Will K. Brown, Jr. and Charles A. Lynn for “Fundamental Clean Room Concepts”

1988 Best Paper Award

Best Symposium Papers: James E. Braun, John W. Mitchell, Sanford A. Klein, and William A. Beckman for “Models for Variable-Speed Centrifugal Chillers”

Ronald M. Heck, Michael Durilla, Alan G. Bouney, and James M. Chen for “Commercial Regeneration Experience for Catalysts in Air Pollution Control Applications”

Honors and Awards Committee
Reference Manual (February 2019)
Carl B. Fliermans and John A. Nygren for "Maintaining Industrial Cooling Systems Free of Legionella Pneumophilia"

John P. Kettler for "Efficient Design and Control of Dual-Duct Variable-Volume Systems"

1989 Best Paper Award

Edward A. Vineyard, James R. Sand, and Terry G. Statt, for "Selection for Ozone-Safe Nonazeotropic Refrigerant Mixtures for Capacity Modulation in Residential Heat Pumps"

Frederick J. Pearson, for "Ice Storage can Reduce the Construction Cost of Office Buildings"

George T. Tamura, for "Stair Pressurization Systems for Smoke Control: Design Considerations"

1990 Best Paper Award

John H. Klote, for "Fire Experiments of Zoned Smoke Control at the Plaza Hotel in Washington, DC"

Dr. Edward A, Kush, for "Detailed Field Study of a Water-Loop Heat Pump System"


Margaret Law for "Fire and Smoke Models - Their Use in the Design of Some Large Buildings"

1991 Best Paper Award

Charles J. Weschler, and Helen C. Shields for "The Impact of Ventilation and Indoor Air Quality in Electronic Equipment"

Robert G. Harold for "Sound and Vibration Considerations in Rooftop Installations"

Mark S. Lentz for "Adiabatic Saturation and VAV: A Prescription for Economy and Close Environmental Control"

John H. Klote, and George T. Tamura for "Design of Elevator Smoke Control Systems for Fire Evacuation"

1992 Best Paper Award

Dr. Abdelhakim Elmahdy, for "Heat Transmission and R-Value of Fenestration Systems Using IRC Hot Box: Procedure and Uncertainty Analysis"

Fred S. Bauman, and Lucy P. Johnston for "Air Movement, Ventilation and Comfort in a Partitioned Office Space"

Dr. Edwin I. Griggs, F. Khodabaksh-Sharifabad for "Flow Characteristics in Rectangular Ducts"

Nancy B. M. Stefanuk, Professor J. Dwight Aplevich, and Associate Professor Metin Renksizbulut for "Modeling and Simulation of a Superheat-Controlled Water-to-Water Heat Pump"

1993 Best Paper Award

Best Symposium Papers: Eric C. Rogers, and Barbara A. Stefl for "Ethylene Glycol: Its Use in Thermal Storage and Its Impact on the Environment"


Fred S. Bauman, Dr. Edward A. Arens, Charles C. Benton, and Zhang Hui for "Localized Comfort Control with a Desktop Task Conditioning System: Laboratory and Field Measurements"

John H. Klote for "Design of Smoke Control Systems for Areas of Refuge"
1994 Best Paper Award

Best Symposium Papers: Dr. Arsen K. Melikov, Razmik S. Arakelian, Laila Halkjaer, and Dr. P. Ole Fanger for “Spot Cooling - Part 2: Recommendations for Design of Spot-Cooling Systems”

Fredric S. Goldner for “DHW System Sizing Criteria for Multifamily Buildings”

Best Technical Papers: John E. Lovatt, and A. Grant Wilson for “Stack Effect in Tall Buildings”

Kazuo Watanabe for “Field Tests for Minimizing Legionella in Cooling Water in Japan”

1995 Best Paper Award

Best Symposium Papers: Blair T. McCarry for “Underfloor Air Distribution Systems: Benefits and When to Use the System in Building Design”

John P. Kettler for “Minimum Ventilation Control for VAV Systems: Fan Tracking vs. Workable Solutions”

Best Technical Papers: David S. Ensor, James T. Hanley, and Daryl D. Smith for “A Fractional Aerosol Filtration Efficiency Test Method for Ventilation Air Cleaners”

William K. Snelson, Jeffrey W. Linton, Andrew R. Triebe, and Patrick F. Hearty for “System Drop-In Tests of Refrigerant Blend R-125/R-143a/R-134a (44%/52%/4%) Compared to R-502”

1996 Best Paper Award

Best Symposium Papers: Pedro F. de Abreu, Roydon A. Fraser, Harry F. Sullivan, and John L. Wright for “A Study of Insulated Glazing Unit Surface Temperature Profiles Using Two-Dimensional Computer Simulation”

Shane A. Moeykens, and Dr. Michael B. Pate for “Effect of Lubricant on Spray Evaporation Heat Transfer Performance of R-134a and R-22 in Tube Bundles (RP-668)”

Anne V. Baughman, and Dr. Edward A. Arens for “Indoor Humidity and Human Health - Part I: Literature Review of Health Effects of Humidity-Influenced Indoor Pollutants”

Robert R. Bittle, and Dr. Michael B. Pate for “A Theoretical Model for Predicting Adiabatic Capillary Tube Performance with Alternative Refrigerants”

1997 Best Paper Award

Best Symposium Papers: Steve P. Rottmayer, Dr. William Beckman, and Dr. John W. Mitchell for “Simulation of a Single Vertical U-Tube Ground Heat Exchanger in an Infinite Medium”

Dr. Gary D. Lougheed, and Dr. George V. Hadjisophocleous for “Investigation of Atrium Smoke Exhaust Effectiveness”

Best Technical Papers: Dr. Ming-C. Chyu, Dr. Xin Zeng, and Liang Ye for “The Effect of Moisture Content on the Performance of Polyurethane Insulation Used on a District Heating and Cooling Pipe”

Dr. Francis A. L. Dullien, Will Kwan, Ann Collins, Gerard W. Regier for “Removal of Suspended Fine Particles from Gases by Turbulent Deposition”

1998 Symposium Paper Award

Dr. Mohammad H. Hosni, Dr. Byron W. Jones, Jerry M. Sipes, and Yue Xu for “Total Heat Gain and the Split Between Radiant and Convective Heat Gain from Office and Laboratory Equipment in Buildings”

Danny S. Parker, John R. Sherwin, Yu Joe Huang, Steven J. Konoacki, Lisa M. Gartland, and Lixing Gu for “Measured and Simulated Performance of Reflective Roofing Systems in Residential Buildings”
Drury B. Crawley for “Which Weather Data Should You Use for Energy Simulations of Commercial Buildings?”

Richard J. de Dear for “A Global Database of Thermal Comfort Field Experiments”

1999 Technical/Symposium Paper Award
Dr. Krzysztof Cena, and Dr. Richard de Dear for “Field Study of Occupant Comfort and Office Thermal Environments in a Hot, Arid Climate”

Dr. Melvin W. First, Dr. Edward A. Nardell, William Chaisson, and Dr. Richard Riley for “Guidelines for the Application of Upper-Room Ultraviolet Germicidal Irradiation for Preventing Transmission of Airborne Contagion - Part II: Design and Operation Guidance”

Dr. Xiaoxiong Yuan, Dr. Leon R. Glicksman, and Dr. Qingyuan Chen for “Performance Evaluation and Design Guidelines for Displacement Ventilation”


2000 Technical/Symposium Paper Award
Jeanne M. Palmer, and Kirby S. Chapman for “Direct Calculation of Mean Radiant Temperature Using Radiant Intensities”

Gerald Riskowski, and Farhad Memarzadeh for “Investigation of Static Microisolators in Wind Tunnel Tests and Validation of CFD Cage Model”

Gerald Riskowski, Farhad Memarzadeh, and Andrew P. Manning for “Analysis of Air Supply Type and Exhaust Location in Laboratory Animal Research Facilities Using CFD”

Alexandra Dragan for “Comparative Analysis of HVAC Systems That Minimize the Risk of Airborne Infectious Disease Transmission”

2001 Technical/Symposium Paper Award
H. Fred Nelson, Harry J. Sauer, and Xianghong Huang for “High Temperature Properties of Moist Air”

Robert R. Zarr for “A History of Testing Heat Insulators at the National Institute of Standards and Technology”

Dr. David A. Didion for “The History of NIST’s Refrigerants Program: Part I - Zeotropic Mixture Cycles and Heat Transfer”

Xinlei Wang, Steve E. Ford, L. L. Christianson, Gerald Riskowski, and Yuanhui Zhang for “Particle Separation Efficiency of a Uniflow Deduster with Different Types of Dust”

2002 Technical/Symposium Paper Award
Steven T. Taylor for “Degrading Chilled Water Plant Delta-T: Causes and Mitigation”

Simon J. Rees, and Jeffrey D. Spitler for “An Analytical Verification Test Suite for Building Fabric Models in Whole Building Energy Simulation Programs”

Sanford A. Klein, Douglas T. Reindl, and David Yu for “Investigation of Solid Absorbents for Humidity Control in Display Cases”

2003 Technical/Symposium Paper Award
William J. Rahmeyer for “Pressure Loss Data for PVC Pipe Elbows, Reducers, and Expansions”
Guan (Don) Yanzheng, Mohammad H. Hosni, Byron W. Jones, and Thomas Gielda for “Literature Review of the Advances in Thermal Comfort Modeling”


Edward A. Vineyard, Randall L. Linkous, and Evelyn Baskin for “Measured Performance of Conventional and High-Velocity Distribution Systems in Attic and Space Locations”

2004 Technical/Symposium Paper Award


Roger R. Schmidt, Ph.D., Christian Belady, Alan Classen, Tom Davidson, Magnus Herrlin, Shlomo Novotny, and Rebecca Perry for “Evolution of Data Center Environmental Guidelines”

Arno Laesecke, Dr.-Ing. For “Viscosity Measurements and Model Comparisons for the Refrigerant Blends R-410A and R-507A”

Karl Peterman, P.E. and Emanuel Mouratidis, P.Eng. for “Pressure Drop and Acoustical Application Guidelines for HVAC Plenums”

2005 Technical/Symposium Paper Award


Charles S. Barnaby, Jeffrey D. Spitler, Ph.D., P.E. for “Development of the Residential Load Factor Method for Heating and Cooling Load Calculations”


2006 Technical/Symposium Paper Award


Paul Sobiski, Richard Swierczyna, and Donald Fisher, P.Eng. for “Effects of Range Top Diversity, Range Accessories, and Hood Dimensions on Commercial Kitchen Hood Performance”


Gregory T. Linteris, Ph.D. for “Burning Velocity of 1, 1-Difluorohane (R-152a)”

2007 Transactions Paper Award

James E. Braun, Ph.D., P.E. for “Impact of Control on Operating Costs for Cool Storage Systems with Dynamic Electric Rates”

Joseph Firrantello, William P. Bahnfleth, Ph.D., P.E., Amy Musser, Ph.D., P.E., James D. Freihaut, Ph.D., and Joe-Weon Jeong, Ph.D. for “Use of Factorial Sensitivity Analysis in Multizone Airflow Model Turning”
Vladimir Vukovic and Jelena Srebric, Ph.D. for “Applications of Neutral Networks Trained with Multi-Zone Models for Fast Detection of Contaminant Source Position in Buildings”


2008 Transactions Paper Award
John L. Wright for “Calculating Center-Glass Performance Indices of Glazing Systems with Shading Devices”

Iain S. Walker, Ph.D. and Darryl J. Dickerhoff for “Field and Laboratory Evaluation of a New Ramping Technique for Duct Leakage Testing”

Saeed Fathali Ph.D., P.E., and Andre Filiatrault, Ph.D. for “Experimental Seismic Performance Evaluation of Integrated Isolation/Restraint Systems for Heavy HVAC Equipment”


2009 Transactions Paper Award

Emilio C. Piesciorovsky and Warren M. White, Ph.D. for “Building Heat Load Contributions from Medium and Low Voltage Switchgear, Part 2: Component and Overall Switchgear Heat Gains”

Thomas Kuehn, Ph.D., P.E., Bernard A. Olson, Ph.D., James W. Ramsey, Ph.D., and Joshua M. Rocklage for “Grease Particle Emission Characterization from Seven Commercial Kitchen Cooking Appliances and Representative Food Products”


2010 Transactions Paper Award
Jeffrey D. Spitler, Ph.D., P.E. and Bereket A. Nigusse, Ph.D.
“Refinements and Improvements to the Radiant Time Series Method”

Michael S. Waring, Ph.D. and Jeffrey A. Siegel, Ph.D.
“The Influence of HVAC Systems on Indoor Secondary Organic Aerosol Formation”

Keisuke Sekiguchi, Shisei Waragai, Tsunio Uekusa, and Kenji Yamasaki
“Development of a High-Efficiency Air Cooled Packaged Air Conditioner for Data Centers”

2010 Technical Paper Award
Christian A. Gueymard, Ph.D. and Didier Thevenard, Ph.D., P.Eng.
“Updating the ASHRAE Climatic Data for Design and Standards”

2011 Technical Paper Award
Jacob L. Edmondson, Dennis L. O’Neal, Ph.D., P.E., John A. Bryant, Ph.D., P.E., and Michael A. Davis, Ph.D
“Performance of Series Fan-Powered Terminal Units with Electronically Commutated Motors”

Jacob L. Edmondson, Dennis L. O’Neal, Ph.D., P.E., John A. Bryant, Ph.D., P.E., and Michael A. Davis, Ph.D.
“Performance of Parallel Fan-Powered Terminal Units with Electronically Commutated Motors”

Kris Subbarao, Ph.D., Yafeng Lei, Ph.D., and T. Agami Reddy, Ph.D., P.E.

William M. Healy, Ph.D., Tania Ullah, and John Roller
“Input-Output Approach to Predicting the Energy Efficiency of Residential Water Heaters-Testing of Gas Tankless and Electric Storage Water Heaters”
2012 Technical Paper Award
John A. Bryant, Ph.D, P.E., Michael A. Davis, Ph.D, and Dennis L. O’Neal, Ph.D, P.E.
“Modeling the Performance of ECM and SCR Parallel Fan-Powered Terminal Units in Single-Duct VAV Systems”

John A. Bryant, Ph.D, P.E., Michael A. Davis, Ph.D, and Dennis L. O’Neal, Ph.D, P.E.
“Modeling the Performance of ECM and SCR Series Fan-Powered Terminal Units in Single-Duct VAV Systems”

Ananth N. Nalla and Stephen A. Idem, Ph.D.
“Laboratory Testing of Saddle-Top Tees to Determine Loss Coefficients”

Farhad Memarzadeh, Ph.D, P.E.
“Literature Review of the Effect of Temperature and Humidity Viruses”

2013 Technical Paper Award
Parham Eslami-nejad, Ph.D., and Michel Bernier, Ph.D., P.E.
“A Preliminary Assessment on the Use of Phase Change Materials around Geothermal Boreholes”

Warren Long, and Darin W. Nutter, Ph.D., P.E.
“Distribution Map of Multi-Walled Carbon Nanotubes in a Refrigerant and Oil Mixture within a 2.5 ton (8.8 Kw) Unitary Air-Conditioner”

Iain S. Walker, Ph.D., David Faulkner, Darryl Dickerhoff, and Will Turner, Ph.D.
“Energy Implications of In-Line Filtration in California Homes”

L. Zhou, D.W. Herrin, P.E., Ph.D., and T. Li, Ph.D.
“Measurement and Simulation of Acoustic Load Impedance for Boilers”

2014 Technical Paper Award
Limin Zhou; David W. Herrin, PE, Ph.D.; Tianxiang Li, Ph.D.
“A Design Approach for Preventing and Solving Combustion Oscillation Problems”

Tami M. Brown-Brandl; Morgan D. Hayes; Hongwei Xin; John A. Nienaber; Hong Li; Roger A. Eigenberg; John P. Smith; Timothy Shepherd
“Heat and Moisture Production of Modern Swine”

Scott Bucking; Andreas Athienitis, PE, Ph.D.; Radu Zmeureanu, PE, Ph.D.
“Multi-Objective Optimal Design of a Near Net Zero Energy Solar House”

Yang Zou; Hanfei Tuo; Pega S. Hrnjak, Ph.D.
“R410A Maldistribution Impact on the Performance of Microchannel Evaporator”

2015 Technical Paper Award
James VanGilder; Zachary M. Pardey; Dustin W. Demetriou, Ph.D.; H. Ezzat Khalifa, Ph.D.; Hamza Salih Erden, Ph.D.; Roger R. Schmidt, Ph.D., P.E.
“Proposal for Standard Compact Server Model for Transient Data Center Simulations” by

David Pommerenke, Ph.D.; Xu Gao; Atieh Talebzadeh; David E. Swenson; Mahdi Moradian, Ph.D.; Yunan Han, Ph.D.
“Dependence of ESD Charge Voltage on Humidity in Data Centers: Estimation of ESD Related Risk in Data Centers Using Voltage Level Extrapolation and Chebyshev's Inequality”

Michael Case, Ph.D.; Justine Yu, Richard Liesen, Ph.D.; Alexander Zhivov, Ph.D.; Matthew Swanson, Ph.D.
“Integration of Master Planning and Energy Planning: From Detailed to Conceptual Analysis”

Dennis O’Neal, Ph.D., P.E.; Douglas D. Ingram; Carl L. Reid
“Modeling Fan-Powered Terminal Unit Fan/Motor Combinations Controlled by Silicon-Controlled Rectifiers”

2016 Technical Paper Award
Dennis L. O’Neal, Ph.D., P.E., Carl L. Reid, Peng Yin
“Characterizing the Performance of Fixed-Airflow Series Fan-Powered Terminal Units Using a Mass and Energy Balance Approach”

James A. Milke, Ph.D., P.E., Christine Pongratz, Arnaud Trouve, Ph.D.
“A CFD Study to Identify Methods to Increase Maximum Velocity of Makeup Air for Atrium Smoke Control”

Nicholas T. Gayeski, Stephen Samouhos, Ph.D., Sian Kleindienst, Ph.D., Ryan Cruz, Jaime Gagne, Ph.D., Bradley Werntz
“Data and Interfaces for Advanced Building Operations and Maintenance”

Kathleen Sturtevant, Alexandra Brogan, Zachary Valigosky, Vijay Gopalakrishnan, Kelly Kissock, Ph.D., P.E.
“Improving Variable-Speed Pumping Control to Maximize Savings”

2017 Technical Paper Award
Omar Abdelaziz, Ph.D., Som S. Shrestha, Ph.D.
“Evaluation of Alternative Refrigerants for Mini-Split Air Conditioners”

Mohammad Rafati Nasr, Ph.D., Carey Simonson, Ph.D., P.Eng.

Alejandro Rivas Prieto, Li Song, Ph.D., P.E., Wesley M. Thomas, Gang Wang, Ph.D., P.E.
“In-Situ Fan Curve Calibration for Virtual Airflow Sensor Implementation in VAV Systems”

Bryan P. Rasmussen, Ph.D., P.E., Chao Wang, Kyaw Wynn

2018 Technical Paper Award
Peng Yin, Ph.D., Carl Reid, Dennis L. O’Neal, Ph.D., P.E.
“Modeling Variable-Airflow Series Fan-Powered Terminal Units with a Mass and Energy Balance Approach”

Peng Yin, Ph.D., Dennis L. O’Neal, Ph.D., P.E., Di Lu
“Annual Energy Performance Evaluation of Series and Parallel Fixed-Airflow Fan-Powered Terminal Units”

Peng Yin, Ph.D., Dennis L. O’Neal, Ph.D., P.E.
“Modeling Variable-Airflow Parallel Fan-Powered Terminal Units with a Mass and Energy Balance Approach”

Shima Shahahmadi, Li Song, Ph.D., P.E.
“Valve Flowmeter Enhancement through Computing Valve Dynamic Behaviors”

POSTER PRESENTATION AWARD

This award is for the best Poster Session Paper from each Annual and Winter Meeting. The award consists of a $250 honorarium and a plaque.

Poster Presentation Winners

2018 - A Poster session was not conducted at the 2018 Winter (Chicago) or 2018 Annual (Houston) Conferences

2017 - Robert Hitchcock, Ph.D., John Butterfield, P.E., Elizabeth Ford Wilkins, P.E., Francisco Forns-Samso
“BIM-Enabled Operations and Maintenance Work Processes”

2016 - A Poster session was not conducted at the 2015 Winter (Chicago) or 2015 Annual (Atlanta) Conferences

2015 – Limin Zhou; David W. Herrin, PE, Ph.D.; Tianxiang Li, Ph.D. for “A Design Approach for Preventing and Solving Combustion Oscillation Problems”
2014 – A poster session was not conducted at the 2013 Winter (Dallas) and Annual (Denver) Conferences

2013 – Lorenzo Cremaschi, Ph.D., Shanshan Cai, Kasey Worthington, and Afshin J. Ghajar, Ph.D., P.E. for “Measurements of Pipe Insulation Thermal Conductivity at Below Ambient Temperature Part 1: Experimental Methodology and Dry Tests”


2008 – Nesreen Ghaddar, Ph. D, Kamel Ghali, Ph.D., Ralph Saadeh, and Amer Keblawi for “Design for Combined Chilled Ceiling Displacement Ventilation System”


2007 – Sherwood G. Talbert, P.E., Stephen Ricci, Ph.D., Matthew E. Goshe, Laura L. Aume, and Rodney L. Osborne for “Reentrainment of Building Exhaust Air by Packaged HVAC Units”


2006 - Vasile Minea for “Improved Supermarket Refrigeration and Heat Recovery Systems”

2005 - Wei Shang, Ph.D., and Robert W. Besant, P.E. for “Determining Flow Channel Size Variations Using a Pressure Probe for a Typical Regenerative Wheel”

2005 - Sang-Min Lee and Jin-Won Lee for “A New Local Ventilation System Using a Vortex Flow Generated with a Finned Rotating Annular Disk”


2002 - William Rahmeyer, Ph.D., P.E. for “Pressure Loss Coefficients for Close-Coupled Pipe Ells”

2001 - Jelena Srebric, Ph.D. and, Quingyan Chen, Ph.D. for “A Method of Test to Obtain Diffuser Data for CFD Modeling for Room Airflow”

2001 - Dr. Janet E. Stout, Ms. Yang Gao, Mr. Ping Zhou, Mr. Y. E. Lin, Ph.D., MBA, and Mr. Radisav Vidic, Ph.D. for “Efficacy of DBNPA Against Legionella Pneumophila: Experimental Results in a Model Water System”

2000 - Pirawas Chuanchid, Ph.D. and Moncef Krarti, Ph.D., P.E. for “Parametric Analysis and Development of a Design Tool for Foundation Heat Gain for Coolers

2000 - Dr. Steve P. Kavanaugh and Dr. Marita Allen for “Thermal Conductivity of Cementitious Grouts and Impact on Heat Exchanger Length for Ground Source Heat Pumps”

1999 - Mr. Francis R. Delafield, Ms. Angelita S. Ng, Mr. Krich Ratanaphruks, Mr. Michael Tufts, and Mr. James Jetter for “Composition Changes in Refrigerant Blends for Automotive Air Conditioning”

1999 - Dr. Jelena Srebric, Dr. Qingyan Chen, and Dr. Leon R. Glickman for “Validation of a Zero-Equation Turbulence Model for Complex Indoor Airflow Simulation”

1998 - Mr. A.D. Machin, Mr. D. Naylor, Dr. Stephen Harrison, and Dr. P.H. Oosthuizen for “Experimental Study of Free Convection at an Indoor Glazing Surface with a Venetian Blind”

1998 - Mr. Chad B. Dorgan, P.E., Dr. Charles E. Dorgan, P.E., Dr. Marty S. Kanarek, and Mr. Alexander J. Willman, P.E. for “Health and Productivity Benefits of Improved Indoor Air Quality”

WILLIS H. CARRIER AWARD

Established in 1960, the Willis H. Carrier Award, sponsored by the Carrier Corporation, is awarded for the best published paper of outstanding quality presented at a Society meeting by a member of any grade who was 32 years of age or less at the time of presentation of the paper. The award consists of a $500 honorarium and plaque.

1959-60............................Aaron L. Brody
1960-61...........................Carl F. Speich
1961..............................J. Richard Wright
1967...............................Charles E. Bullock
1968..............................George D. Huffman
1969..............................Richard E. Barrett
1970..............................Yosunobu Nishi
1971..............................Douglas E. McDuffie, Jr.
1973..............................Stanley A. Mumma
1975..............................Douglas M. Burch
1976..............................Merle F. McBride
1977..............................Stephen M. Sessler
1978..............................A.F.M. Ali
1979..............................Sudhir K. Sastry
1980..............................Stephen E. Selkowitz
1981..............................Amir L. Ecker
1982..............................Francesco Pompei
1983..............................Van D. Baxter
1984..............................Nancy J. MacDonald Banks
1985..............................Frank E. Jakob
1986..............................Joseph E. Laviana
1987..............................Robert W. Rasmussen
1988..............................Alain P. Fobelets
1989..............................Joseph H. Eto
1990..............................Anil K. Trehan
1991..............................Andreas K. Athienitis

1992..............................Lars J. Nilsson
1993..............................Nancy J. Banks
1994..............................Barbara A. Stefl
1995..............................Frederic B. Morris
1996..............................Chad B. Dorgan
1997..............................Shane A. Moeykens
1998..............................Steve P. Rottmayer
1999..............................Brian W. Lee
2000..............................Carey J. Simonson
2001..............................Dustin L. Ciepliski
2002..............................Andrew Manning
2003..............................Xianghong Huang
2004..............................Dongyi Xiao
2005..............................Guan Yanzheng
2006..............................Nicolas Long
2007..............................No Award Given
2008..............................Barbara H. McCrary
2009..............................Joseph Firrante & Alexander P. Michaud
2010..............................Paulo Cesar Taberes Velasco, Ph.D.
2011..............................Michael S. Waring
2012..............................Daniel C. Gibbs
2013..............................Paul Glanville, P.E., Douglas Kosar, and Jason Stair
2014..............................Morgan D. Hayes
2015..........................Dustin W. Demetriou
                        Hamza Salih Erden
2016..........................Carl L. Reid
                        Peng Yin
2017..........................Mohammad Rafati
2018 ..........................Carl L. Reid
                        Peng Yin

**JOURNAL PAPER AWARD**

This award is presented to the author of the best article published in the ASHRAE Journal during the Society year. The award consists of a plaque and an honorarium in the amount of $500.

1983  Bruce J. Novell
1984  Francis J. McCabe
1985  R.L. Webb and A. Villacres
1986  Carl H. Jordan and Makio Goto
1987  Clifford M. Scofield and James R. Taylor
1988  Mark O. McLinden and David A. Didion
1989  Carl H. Jordan
1990  Gershon Meckler
1991  William J. Coad
1992  Thomas B. Romine, Jr.
1993  F. Sherwood Rowland
1994  Marhta J. Hewett, Mary Sue Lobenstein, and
      Susan K. Nathan
1995  Bernard A. Nagengast
1996  Steven T. Taylor
1997  Lewis G. Harriman, III
1998  Gurvinder Singh and John Mitchell
1999  Lewis G. Harriman, III, Donald G. Colliver,
      and K. Quinn Hart
2000  Rudolph Stegmann
2001  Thomas B. Hartman
2002  John Frederick Straube
2003  Gordon V. R. Holness
2004  Joseph W. Lstiburek
2005  Dennis Stanke
2006  Michel Bernier
2007  Fredrick Rohles
2008  James Cummings and Charles Withers, Jr.
2009  James Steven Brown
2010  Steven T. Taylor and C. Hwakong Cheng
2011  John A. Murphy
2012  John A. Murphy
2013  Daniel Nall and Robert Sedlack
2014  Paul Lindahl
2015  Philip Bartholomew
2016  Hugh Crowther and Yi Teng Ma
2017  Omar Hawit and Trevor Jaffe
2018  Dan Koenigshofer and John Roberts

**SCIENCE AND TECHNOLOGY FOR THE BUILT ENVIRONMENT BEST PAPER AWARD**

Established in 2013, this award recognizes the best referred paper published in the volume year of Science and Technology for the Built Environment, the ASHRAE Journal, preceding the ASHRAE Winter Conference. The form of the award is a plaque.

The name of the award was changed from the HVAC&R Research Best Paper Award in June 2015.
2012  Bryan Rassmussen
2013  Arsen Melikov, Barbora Krejcirvova, Jan Kaczmarczyk, Marcin Duszyk, and Tomonori Sakoi
2014  David Yashar, Piotr Domanski, Hong Cho
2015  Sorin Bengea, Pengfei Li, Soumik Sarkar, Sergey Vichik, Veronica Adetola, Keunmo Kang, Teems Lovett, Francesco Leonardi
2016  Nesreen Ghaddar, Bachir El Fil, Kamel Ghali
2017  Daniel Bacellar; Vikrant Aute; Zhiwei Huang; Reinhard Radermacher
2018  H. Burak Gunay; Weiming Shen; Chunhseng Yang

TECHNOLOGY AWARDS

Established in 1981, this award recognizes successful applications of innovative design, which incorporate ASHRAE standards for effective energy management, indoor air quality, and mechanical design management technology. The award consists of a plaque.

HEALTH CARE FACILITIES—NEW

2000.......Michael K. Larson for Quality Living Inc. - East Campus Development, Omaha, Nebraska
2002.......Warren L. Lloyd for Great River Medical Center—New Medical Campus, West Burlington, Iowa
2005.......Jeffrey P. Blaevoet for the Kaiser Geary Medical Office Building, San Francisco, California
2007.......Matt Younger for the Washington Department of Veterans Affairs, Retiel, Washington
2010.......Paul B. Switenki for Kaiser Permanente Template Hospitals. Oakland, California
2010.......Don M. Iverson .for Harborview Medical Center – New Norm Maleng Building, Seattle, Washington
2010.......Michael T. Stark for Northwestern Memorial Hospital – New Prentice Women’s Hospital, Chicago, Illinois
2011.......Matt Volgyi for Kaiser Downey Medical Center, Garden Grove, California
2012.......Paul Marmion for Abbotsford Regional Hospital and Cancer Centre, West Vancouver, British Columbia, Canada
2012.......Olivier Brodeur for CLSC Chateauguay, Longueuil, Quebec, Canada
2012.......Steve Guttmann for Health & Wellness center, UC-Davis, San Francisco, California
2013.......Jeremy Mcclanathan for Swedish Issaquah Hospital, Lynnwood, Washington
2013.......Michael Lawless for Aurora Medical Center – Grafton Wisconsin, Madison, Wisconsin
2014.......Pascal Michaud for the Expansion of Notre Dame of St. Rosary Convent, Rimouski, Quebec, Canada
2015.......Mark Stavig for Peace Island Medical Center, Lynnwood, Washington
2017.......Kurt Monteiro for Humber River Hospital, Toronto, Ontario, Canada
2019.......Daniel Robert and Stanley Katz for Ullivik Health Centre, Montreal, Quebec, Canada

HEALTH CARE FACILITIES—EXISTING

1999.......Laurier Nichols for Sacre-Coeur Hospital, Montreal, Quebec, Canada
2001.......Arthur G. Veneklase for Blodgett Memorial Medical Center Chiller Replacement, East Grand Rapids, Michigan
2008.......Laurier Nichols, Rejean Blais, Simon Pelletier, Oanh Nguyen, Jean Molina & Marco Freitas for Rehabilitation of Honore-Mercier Hospital, Saint-Hyacinthe, Quebec, Canada
2011.......Gilles Demarais for Rehabilitation Pierre-Boucher Hospital, Montreal, Quebec, Canada
2011.......Jack Kafesdijan for Louis H-Lafontaine-Hospital, Laval, Quebec, Canada
2011.......Michael Murphy and Greg Noorts for Advocate Lutheran General Hospital, Evanston, Illinois
2011.......Jeffrey Blaevoet for Marin Health & Wellness Center, San Francisco, California
2013.......Bruce L. Flaniken for Methodist Hospital Central Utility Plant, Houston, Texas
2013.......Eric Fullerton for TMC Phase 2 Cooling, Little Rock, Arkansas
2015.......Jean-Philippe Morin for CSSS Pointe-de-l’Île – Energy Conservation Project, Longueuil, Quebec, Canada
2018.......Pierre-André Tremblay for CHU de Quebec Integrated Energy Efficiency Project, Quebec City, Canada

HEALTH CARE FACILITIES—EBCx

2018.......Eric M. Fullerton, Alam McElderry, and Andrew Jester for Pineville Enterprise Energy Management System Phase 1, Charlotte, North Carolina
ALTERNATIVE AND/OR RENEWABLE ENERGY USE

1999........Paul A. Torcellini for National Renewable Energy Laboratory Thermal Test Facility, Golden, Colorado
2001........Paul A. Torcellini and Otto Van Geet, for Otto Van Geet Residence, Idaho Springs, Colorado
2006.........Laurier Nichols for Ecole Du Tournant, Saint-Constant, Québec

INSTITUTIONAL BUILDINGS—NEW

1999........Stephen W. Tweedie for the Nova Institution, Truro, Nova Scotia, Canada
2001.........Roland Charneux for the President Kennedy Building, Universite du Quebec a Montreal, Montreal, Quebec, Canada
2001.........Peter A. Potvin for Saint John’s University Science Building, Minneapolis, Minnesota
2001.........Jonathan P. Friedan for Henry P. Rowan Hall, Rowan University School of Engineering, Philadelphia, Pennsylvania
2002..........A. Boyd Morgenthaler and David F. Shumway for Fish and Game Hunter Education Building, Fairbanks, Alaska
2004.........David C. Inghram, for Des Moines Area Community College-West Campus, Des Moines, Iowa
2005........Nicolas Lemire for the Concordia University Science Complex, Montreal, Canada
2005.........Wayne E. Kerbelis for the Allegan High School New Natatorium & Theater Additions, Allegan, Michigan
2005.........Antonio Costa for the Race Hall at Santa Rosa Junior College, Santa Rosa, California
2008.........Craig A. Watts for the Fossil Ridge High School, Fort Collins, Colorado
2008.........Stephane Sirard for the Centre de Formation Professionnelle l’Horizon, Mont-Tremblant, Quebec, Canada
2009.........Jacques de Grace for Normand Maurice Building, Montreal, Quebec, Canada
2009.........Eric Kirkland for NREL ST&F, Golden Colorado
2009.........David Williams for Two Harbors High School, Two Harbors, Minnesota
2009.........Stephane Sirard for CEROM, St. Mathieu-de-Beloeil, Quebec, Canada
2010.........Surrender Naganathan for Deer Ridge Correctional Institution, Madras, Oregon
2010.........Stephen C. Roberts for Kirsch Center for Environmental Studies, Cupertino, California
2010.........Donald J. McLaughlin, Steven D. Maze, and David Lavan for Richard J. Klarchek Information Commons Building, Chicago, Illinois
2010.........Robert N. Roop for New Whitmore Lake High School, Whitmore Lake, Michigan
2010.........Rejean Blais for Post de Police de la Surete a Vaudreuil – Dorion, Vaudreuil – Dorion, Quebec, Canada
2010.........Nicolas Lemire for Kahnawake Survival School, Kahnawake, Quebec, Canada
2011.........Amit Khanna for Jerry Yang and Akiko Yamazaki Environment and Energy Building, San Francisco, California
2011.........Jean Molina and Laurier Nichols for Saint-Johns High School, Montreal, Quebec, Canada
2011.........Derek Crowe for Ann Arbor New Skyline High School, Troy, Michigan
2011.........Antonia Costa for College of Siskiyous Emergency Services Training Center, Napa, California
2011.........Robert Thompson for Mesa Community College Physical Sciences Building, Gilbert, Arizona
2011.........Jeffrey Blaevot for Valley Hi North Laguna Library, San Francisco, California
2011.........Heric Holmes for Regina Provincial Corrections Centre, Regina, Saskatchewan, Canada
2012.........Wayne E. Kerbelis for SVSU Health and Human Services Building, Troy, Michigan

INSTITUTIONAL BUILDINGS – EXISTING

2001.........Jeffrey Celuch for Capital University Hybrid Chilled-Water Plant, Columbus, Ohio
2001.........James C. Paul for Energy Loop, Saginaw Valley State University, University Center, Michigan
2005.........Gilles Desmarais for the Jean-de-Brebeuf College, Montreal, Canada
2006.........Lev H. Zvenyach for Chicago Center for Green Technology, Chicago
2009.........Thomas Durkin for HVAC Renovations - G.W. Carver Elementary School, Indianapolis, Indiana
2010.........Brett J. Kelley and Charles T. Meagher for cGMP Cell Therapy Facility, Chicago, Illinois
2010.........Mark M. Hydeman and Molly E. McGuire for Stanford University Stauffer Building I Laboratory VAV Conversion, Stanford, California
2010.........Genevieve Lussier for Pavilion Envirotroon, Quebec City, Quebec, Canada
2011.........David Porter and Branden Farnsworth-Weinblatt for Campus Wide Satellite Boilers, Rochester, NY
2011.........Marco Freitas and Simon Pelletier for COWANSVILLE COURTHOUSE, Montreal, Quebec, Canada
2013.........Sean Abbott for Seattle Fire Station #2, Lynwood, Washington
2019.........Eric Solrain and Kathryn Lee for San Francisco Art Institute at Fort Mason Center Pier 2, San Francisco, California

OTHER INSTITUTIONAL – NEW

2012.........Matthew Longsine for Battelle Biological Sciences Facility, Seattle, Washington
2012.........Michael J. Lawless for Stout-Jarvis Hall Science Wing Renovation & Addition, Madison, Wisconsin
<table>
<thead>
<tr>
<th>Year</th>
<th>Honor</th>
<th>Description</th>
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<tbody>
<tr>
<td>2013</td>
<td>Jonathan Heller</td>
<td>For Eastside Fire &amp; Rescue Station 72, Seattle, Washington</td>
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<tr>
<td>2013</td>
<td>Abdel Darwich</td>
<td>For Segundo Services Center, San Francisco, California</td>
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<tr>
<td>2014</td>
<td>Matthew William Longsine and Henry Di Gregorio</td>
<td>For the Tacoma Center for Urban Waters, Seattle, Washington</td>
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<tr>
<td>2014</td>
<td>Hajime Yoshida</td>
<td>For the Green Technology Training and Enterprise Center, Madison, Wisconsin</td>
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<tr>
<td>2015</td>
<td>Eric William Shaw</td>
<td>For the Upper Thames River Conservation Authority, London, Ontario, Canada</td>
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<tr>
<td>2016</td>
<td>Frank Shadpour</td>
<td>For Miramar College Police Substation and Parking Structure, San Diego, California</td>
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<td>2017</td>
<td>John Patrick McDonald</td>
<td>For J. Craig Venter Institute, Oakland, California</td>
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<tr>
<td>2017</td>
<td>Martin Roy</td>
<td>For Bibliothèque Ville de Mont-Royal, Deux-Montagnes, Quebec, Canada</td>
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<tr>
<td>2017</td>
<td>Caroline R. Kelty</td>
<td>For Deep Green Residence Hall, Lexington, Kentucky</td>
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<tr>
<td>2018</td>
<td>Steven T. Taylor, Todd Gotthall, David Heinzlerling, and Allan Daly</td>
<td>For San Francisco Museum of Modern Art, San Francisco, California</td>
</tr>
<tr>
<td>2018</td>
<td>Martin Roy</td>
<td>For Bibliothèque Raymond-Lévesque, Longueuil, Quebec, Canada</td>
</tr>
<tr>
<td>2018</td>
<td>Robert Harold Thompson, Eric L. Kirkland and Fletcher J. Clarcq</td>
<td>For NREL Energy Systems Integration Facility (ESIF), Golden, Colorado</td>
</tr>
<tr>
<td>2019</td>
<td>David Meyer, Jaimee Wilson, Eric LePore, and Alfred Rodgers</td>
<td>For Koffman Southern Tier Incubator, Binghamton, New York</td>
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**OTHER INSTITUTIONAL – EXISTING**

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<tr>
<th>Year</th>
<th>Honor</th>
<th>Description</th>
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<tbody>
<tr>
<td>2015</td>
<td>Kateri Héon and Pietro Guerra</td>
<td>For the Centre Cividique de Dollard-des-Ormeaux, Montreal, Quebec, Canada</td>
</tr>
<tr>
<td>2016</td>
<td>Lisa J. Sombart</td>
<td>For the St. Louis Public Library-Central Branch Renovation, St. Louis, Missouri</td>
</tr>
</tbody>
</table>

**EDUCATIONAL FACILITIES – EXISTING**

<table>
<thead>
<tr>
<th>Year</th>
<th>Honor</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>2012</td>
<td>Wayne E. Kerbelis</td>
<td>For SC4-North Building HVAC Renovation, Troy, Michigan</td>
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<tr>
<td>2012</td>
<td>Ryan Thorson</td>
<td>For Northwestern High School, Duluth, Minnesota</td>
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<td>2013</td>
<td>Thomas Durkin</td>
<td>For Hamilton Heights Elementary School - HVAC, Indianapolis, Indiana</td>
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<td>2013</td>
<td>Laurier Nichols</td>
<td>For McGill University – McIntyre Pavilion, Montreal, Quebec, Canada</td>
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<td>2014</td>
<td>Nicolas Lemire</td>
<td>For the McGill University, Otto Maass Building, Montreal Quebec, Canada</td>
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<tr>
<td>2016</td>
<td>Eric Yang</td>
<td>For Strawbridge Elementary School, Virginia Beach, Virginia</td>
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<td>2017</td>
<td>Adam M. Pierce</td>
<td>For Cox’s Creek Elementary School, Prospect, Kentucky</td>
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<td>2018</td>
<td>Jonathan Rumohr and Jesse Hendershot</td>
<td>For Heritage Hall Alumni Center, Kalamazoo, Michigan</td>
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<tr>
<td>2019</td>
<td>Morgan Heater</td>
<td>For Westside School, Seattle, Washington</td>
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</tbody>
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**EDUCATIONAL FACILITIES – NEW**

<table>
<thead>
<tr>
<th>Year</th>
<th>Honor</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>2012</td>
<td>René Dansereau</td>
<td>For Université de Sherbrooke-Campus de Longueuil, Longueuil, Quebec, Canada</td>
</tr>
<tr>
<td>2012</td>
<td>Jeffrey Blavoet</td>
<td>For the Tamirina &amp; Antle Family Memorial Library, San Francisco, California</td>
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<tr>
<td>2013</td>
<td>Mark Owen Koller</td>
<td>For Portland State University Academic &amp; Student Recreation Center, Portland, Oregon</td>
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<tr>
<td>2013</td>
<td>Louise Grace Smith</td>
<td>For Vancouver Island University – Cowichan Campus, Victoria, British Columbia, Canada</td>
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<tr>
<td>2013</td>
<td>Hormoz Janssens</td>
<td>For City College of San Francisco – Ocean Campus Academic Multi-Use Building, San Francisco, California</td>
</tr>
<tr>
<td>2013</td>
<td>Brian Haugk</td>
<td>For Machias Elementary School, Seattle, Washington</td>
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<tr>
<td>2014</td>
<td>Stephen Hamstra</td>
<td>For the 300 Davis Street Building, Zeeland, Michigan</td>
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<tr>
<td>2014</td>
<td>Timothy McGinn</td>
<td>For the University of Calgary, EEE Project, Calgary, Alberta, Canada</td>
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<tr>
<td>2014</td>
<td>Glenn Friedmann and Brent Eubanks</td>
<td>For the Oakland Unified School District, La Escuelita Education Center, Alameda, California</td>
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<tr>
<td>2014</td>
<td>Stephanie Febles</td>
<td>For Locust Trace AgriScience Farm, Lexington, Kentucky</td>
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<tr>
<td>2015</td>
<td>Brian A. Haugk and Brian B. Cannon</td>
<td>For Valley View Middle School, Seattle, Washington</td>
</tr>
<tr>
<td>2016</td>
<td>Nicolas Lemire</td>
<td>For Anne-Marie Edward Science Building – John Abbott College, Sainte-Anne-de-Bellevue, Quebec, Canada</td>
</tr>
<tr>
<td>2016</td>
<td>Steve Daley</td>
<td>For Sandy Grove Middle School, Lumber Bridge, North Carolina</td>
</tr>
<tr>
<td>2017</td>
<td>Bradford Crowley</td>
<td>For Johns Hopkins University, Undergraduate Teaching Laboratories, Philadelphia, Pennsylvania</td>
</tr>
<tr>
<td>2017</td>
<td>Nate Epplle</td>
<td>For Millikan Laboratory and Andrew Science Hall, Oakland, California</td>
</tr>
<tr>
<td>2017</td>
<td>George P. Karidis</td>
<td>For Oakland University Engineering Center, Detroit, Michigan</td>
</tr>
<tr>
<td>2018</td>
<td>Raymond L. Beauffait</td>
<td>For Discovery Elementary School, Arlington, Virginia</td>
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<tr>
<td>2018</td>
<td>Regan T. Moffat</td>
<td>For Taylor Institute for Teaching &amp; Learning – University of Calgary, Calgary, Alberta, Canada</td>
</tr>
</tbody>
</table>
2018……….Stet Allen Sanborn and Tyler Bradshaw for University of California – Santa Cruz Cowell Ranch Historic Haybarn, Santa Cruz, California
2018……….Brian L. Coffield for American University – Washington College of Law, Washington, District of Columbia
2019……….Michael P. Sherren for Wilde Lake Middle School, Columbia, Maryland

INDUSTRIAL FACILITIES OR PROCESSES—NEW

2000………..J. Howard Van Boerum for Salt Lake Organizing Committee, Utah Winter Sports Park - Bobsled/Luge Track, in Bear Hollow (Park City), Utah
2005………..Jeffrey D. Celuch for the LaFarge Gypsum Drywall Plant, Cincinnati, Ohio
2007………Pierre Roussel and Jacques Lagace for the Pierre-Elliott Trudeau Airport – Thermal Plant, Montreal, Quebec, Canada
2008………Christopher Rauch for the Aramark Chicago Industrial Laundry, Chicago, Illinois
2010……….Jonathan M. Mesik for Oak Park Public Works Center, Oak Park, Illinois
2010……….Ronald Gagnon and Louis Racciott for Logistik Unicorp, St-Jean sur Richelieu, Quebec, Canada
2010……….Martin Roy for Sobey’s Warehouse, Trois-Rivieres, Quebec, Canada
2012……….Blake E. Ellis for Thermal Energy Corporation-Thermal Energy Storage, Kansas City, Missouri
2012……….Curtis Cadby for Watsonville Water Resources Center, San Leandro, California
2013……….Blake Ellis for Thermal Energy Corporation – East Chilled Water Building, Kansas City, Missouri
2013……….Patrick Klanac for Verizon Wireless – Twinsburg Data Center, Akron, Ohio
2014……….Mukesh Khattar for the Breakthrough Innovation for Data Center Cooling Efficiency, Redwood City, California
2014……….Charles E. Guledge, III for the Caterpillar Axle Manufacturing Plant, Greensboro, North Carolina
2015……….Charles E. Guledge, III for the Caterpillar MHE-STTT Assembly Plant, Greensboro, North Carolina
2015……….Brett Mason Griffin for Digital Realty Data Campus, Chicago, Illinois
2015……….Terr G. Autry for the NCAR – Wyoming Supercomputing Center, Lakewood, Colorado
2016……….Mike Smith for Sea-Tac Airport Pre-Conditioned Air, Seattle, Washington
2016……….Abdel K. Darwich for the Jess Jackson Sustainable Winery Building, Davis, California
2017……….Julien Allard for STM - Construction du Centre de transport de Simons, Montreal, Quebec, Canada

INDUSTRIAL FACILITIES OR PROCESSES—EXISTING

1999……….Donald P. Fiorino for Texas Instruments Central Steam Boiler Plant Replacement, Dallas, Texas
2000………..Byron H. Bakenhus for Lincoln Electric System, Rokey Ice Storage Project, Lincoln, Nebraska
2002……….Arthur Wesley Adler for the Alpha Gary Central Chilled Water Plant, Leominster, Massachusetts
2005……….Evans J. Lizardos for the Port Authority of New York and New Jersey, New York, New York
2007……….Dan Ped for IBM, Bromont, Quebec, Canada
2010……….Mukesh K. Khattar for High Density Data Center Cooling/Heat Containment, Austin, Texas
2011……….Yan Ferron for Buanderie Central de Montreal, Montreal, Quebec, Canada
2012……….Luc Simard for Arena Marcel Dutil, Les Coteaux, Quebec, Canada
2013……….Robert Sloan for TCS Data Center, Seattle, Washington
2013……….Robert Turner for High Purity Standards Renovation, Charleston, South Carolina
2014……….Georges Mihalache for Fromagerie des Basques, Montreal, Quebec, Canada
2015……….William C. Weineag, Jr., Wade H. Conlan, and Damon Lynn for Antarctica: Empire of the Penguin, Maitland, FL
2016……….Eric K. Miller for the Erie County Medical Center-Chilled Water Plant Improvements, Buffalo, New York
2017……….Dominic J. Cacolici for Tampa International Airport-Passenger Boarding Bridge Cooling, Tampa, Florida

PUBLIC ASSEMBLY—NEW

2005……….Jeffrey L. Ewens and Blake E. Ellis for the SBC Center, San Antonio, Texas
2006……….Martin Roy for TOHU’s Capiteau Des Arts, Montreal
2008……….Rick L. Grove for Firstenburg Community Center, Vancouver, Washington
2008……….David Kistler for Environmental Discovery Center, Springfield Township, Michigan
2008……….Martin Roy for Canadian Amateur Musician Musiciens Amateurs Canadien, Harrington, Quebec, Canada
2009……….Laurier Nichols for Centre Communautaire de Mistissini, Montreal, Quebec, Canada
2011……….Yury Lui and Charles Eggert for Jewish Reconstructionist Congregation, Chicago, Illinois
2013……….Caroline Paquet for Biodiversity Pavillion, Montreal, Quebec, Canada
2015……….Arthur Gilbert Sutherland for the Westhills Recreation Centre, Victoria, British Columbia
2018……….Samuel Paradis for Amphithéâtre Multifonctionnel de Québec (Centre Videotron), Quebec, Quebec, Canada
2019……….Sarah Bersteh and Scott Lichy for Ramsey County Library – Shoreview, Shoreview, Minnesota
2019……….Martin Roy for Résidences funéraires Goyer, Ste-Thérèse, Quebec, Canada

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PUBLIC ASSEMBLY—EXISTING

1999 ……..Claude Dumas for City of Montreal Skating Rinks, Montreal, Quebec, Canada

2002 ……..Peter H. Rumsey for The Oakland Museum, Oakland, California

2012 ……..Timothy Gasper for The North Carolina Museum of Art, Raleigh, North Carolina

2013 ……..Andre-Benoit Allard for Montreal Biodome, Quebec City, Quebec, Canada

2013 ……..Olivier Paquette St-Jean for Olympia Arena, Montreal, Quebec, Canada

2015 ……..Jason Troy LaRosh for the Janesville Ice Arena Addition and Renovation, Janesville, Wisconsin

2018 …….. Matt Branham, Adam Pierce, and Jess Farber for Kentucky Exposition Center, Louisville, Kentucky

2019 ……..Dominic Desjardins, Maurice Landry and Andre-Benoit Allard for Montreal Olympic Park’s Integrated Performance Contracting Project, Montreal, Quebec, Canada

COMMERCIAL BUILDINGS - NEW

1999 ……..Sukhdev S. Mathaudhu for the City of Riverside Public Utilities Operations Center, Riverside, California

2005 ……..Frederic Genest for the Mountain Equipment Co-op, Montreal, Canada

2005 ……..Jeffrey P. Blaevoet for the Big Rock Ranch, Lucas Films, Nicasio, California

2005 ……..Steven T. Taylor and Jeffrey R. Stein for the Electronic Arts II, Redwood City, California

2008 ……..Albert R. Barifeld for Springhill Suites, Pensacola Florida

2008 ……..Steven Jones for the Kern Schools Federal Credit Union Administration Building, Bakersfield, California

2010 ……..Michael J. Hedrick, Thomas J. Marseille, and Long Lam for The Terry Thomas, Seattle, Washington

2010 ……..Stephan L. Weidner for 100 Howe Building, Covington, Kentucky

2011 ……..Peter H. Rumsey for The David Brower Center, Oakland, California

2011 ……..David Grassl for Johnson Controls Corporate Headquarters, Milwaukee, Wisconsin

2012 ……..Roland Charneux for Mountain Equipment Coop, Montreal, Quebec, Canada

2012 ……..Jonathan Heller for Northwest Maritime Center, Seattle, Washington

2012 ……..Olivier Brodeur for Cartierville Y Centre, Longueuil, Quebec, Canada

2012 ……..Daniel P. Robert for Bell Campus, Phases 1 & 2, Laval, Quebec, Canada

2012 ……..Prem Mehrotra for Evelyn Pease Tyner Interpretive Center, Oak Park, Illinois

2013 ……..Joe Tai for Research Support Facility, NREL, San Francisco, California

2013 ……..Peter French Alspach for Bill & Melinda Gates Foundation Headquarters, Seattle, Washington

2013 ……..Thiam Leong Chen for The Energy Commission HQ (Diamond Building), Petaling Jaya, Selangor, Malaysia

2013 ……..Prem Jain for Eco Commercial Building – Greater Noida, Noida, India

2013 ……..Stephen Carpenter for A Grander View, Kitchener, Ontario, Canada

2013 ……..Nuno Duarte for Walmart Burlington – Geo-Exchange, Toronto, Ontario, Canada

2014 ……..Peter Rumsey for the Packard Foundation Net Zero Energy Headquarters, Oakland, California

2014 ……..Scott Bowman for the Iowa Utilities Board, Office of Consumer Advocate Office Building, Des Moines, Iowa

2014 ……..Shengwei Wang for the International Commerce Center, Hong Kong, China

2014 ……..Pierre Levesque for the Jonxion – 4905 Lapiniere, Longueil, Quebec, Canada

2014 ……..Jacques Lagacé for La Maison du Developpement Durable, Montreal, Quebec, Canada

2015 ……..Benjamin Frank Gozart, Charles Chaloeicheep, Tom J. Marseille, and Tom C. Boyesen for Federal Center South – Building 12021, Seattle, Washington

2015 ……..Aaron Robert Smith for 100 Venture Run, Halifax, Nova Scotia

2015 ……..Jacques Lagacé for Commission de la Construction du Quebec, Montreal, Quebec

2016 ……..Benjamin A. Skelton for the Walgreens Net Zero Store (Store #15364), Chicago, Illinois

2017 ……..Kitaro Mizuide for YKK80 Building, Osaka, Japan

2017 ……..Brian Rose, Tracy Steward for Cincinnati District 3 Police HQ - NZE Building, Cincinnati, Ohio

2017 ……..Brian Coffield for Chesapeake Bay Foundation - Brock Environmental Center, Washington, D.C.

2018 ……..Roland Charneux for Mountain Equipment Co-op Head Office, Vancouver, BC, Canada

2018 ……..Devin G. Cheek and Jeremy Smith for CMTA Lexington Office, Lexington, Kentucky

2018 ……..Hiromasa Tanaka, Susumu Horikawa, and Kouji Sugihara for Daikin Technology and Innovation Center, Settsu, Osaka, Japan

2019 ……..Dwight Schumm and Timothy Lentz for Indian Creek Nature Center Amazing Space, Cedar Rapids, Iowa

2019 ……..Steve Gross, Hormoz Janssens and Shawn Wilson for Marine Way (Building 20), Mountainview, California

COMMERCIAL BUILDINGS – EXISTING

1999 ……..Bruce T. Votta for the Admiral Fell Inn, Baltimore, Maryland

2001 ……..Sukhdev S. Mathaudhu for County Administrative Center, Riverside, California


2004 ……..Jeffrey Blaevoet for Hamilton Landing Hanger 3, 4, 5, and 6, Novato, California

2008 ……..Pierre Roussel for the Complexe les Ailes, Montreal, Quebec, Canada

2009 ……..Kenneth Sommor for 4200 St. Laurent Office Tower, Montreal, Quebec, Canada
2010........Caroline Paquet for National Bank Tower, Montreal, Quebec, Canada
2010........Peter H. Rumsey for IDEAS Design Facility, San Jose, California
2010........Roland Charneux for Place Desjardins, Inc. – Office Towers Energy Retrofit, Montreal, Quebec, Canada
2011........Roland Charneux for 1801 McGill College, Montreal, Quebec, Canada
2011........Peter Bailey, Walter Joneas, and Gregory Dodge for Hybrid Refrigeration Chiller, Huntington, Vermont, Cazenovia, New York, Billerica, Massachusetts
2011........Alexander Butkus and Gerry Noorts for Grand Hyatt Kauai Resort and Spa, Evanston, Illinois
2011........Michael Sotura for Boeing 18-26, Seattle, Washington
2012........Ken Sonmor for IKEA Brossard Distribution Center, Montreal, Quebec, Canada
2012........Murdoch MacPherson for AODBT Office Space Renovation, Regina, Saskatchewan, Canada
2012........Bruce Davis for Deere and Company Retrofit-East Office, Moline, Illinois
2013........Shawn Oram for Rice Fergus Miller Office & Studio, Seattle, Washington
2013........Yuming Chen for Fault Detection and Diagnosis for VAV in Cambridge House, Changsha, Hunan, China
2013........Peter Rumsey for Integral Group Deep Green Office, Oakland, California
2013........Mehrdad Alipour for Marvell Building 4, Data Center Ecomonomizer, San Jose, California
2013........David Budd for the SIERR Building at McKinstry Station, Seattle, Washington
2013........Sharti (Shawn) Oran for the King County Housing Authority, Seattle, Washington
2015........Perry Hausman for Corporation Hall, Kalamazoo, Michigan
2015........Stanley Katz for Complex Southwest One, Laval Quebec, Canada
2016........Dylan T. Connelly for DPR Construction’s San Francisco Net Positive Energy Office, San Francisco, California
2017........Shannon M. Allison for 435 Indio Way, Oakland, California
2017........Russell Charles Pratt for CSHQA Office Building, Boise, Idaho
2017........Seck Pong Chan for MGM Macau, NAPE Macau
2018........Mark C. Hersch and Holly Stevens for Market One, Des Moines, Iowa
2018........Hsiu-Cheng Chiang and Ming-Shan Jeng for IEK Center Building, Chutung, Hsinchu, R.O.C.
2018........Abdul Razaak Syed Mubarak and Paul Mikii Abuel for Sands China Ltd. (COTAI Strip), Taipa, Macau
2019........Hiroki Kawakami, Hiroaki Takai, Kazuki Wada, and Koji Tanaka for TaKENAKA Corporation Higashikanto Branch Office Renovation, Koutou-ku, Tokyo, Japan
2019........Daniel Robert and Stanley Katz for Complex de Gaspé, Montreal, Quebec, Canada
2019........John Andary and Josh Brincks for LinkedIn – Zero Net Energy Office Retrofit, Sunnyvale, California

COMMERCIAL BUILDINGS – EBCx

2019........John Tsingas and David Eldridge for 801 Grand, Des Moines, Iowa

RESIDENTIAL – NEW

2000........Marc Rosenbaum for Hanover House, Hanover, New Hampshire
2010........University of California Merced – Sierra Dormitory Buildings I & II, Merced, California
2013........Tom (Shimin) Ren for Whistler Athlete’s Village, New Westminster, British Columbia, Canada
2013........Scott Koehn for Brentwood Net Zero Affordable Housing Project, Edmonton, Alberta, Canada
2013........Goran Ostojic for The Village on False Creek, Vancouver, British Columbia, Canada
2014........Darren Dageforde for the Dageforde Residence, Blair, Nebraska
2014........Ariel Levy for the Ramona Apartments, Portland, Oregon

RESIDENTIAL – EXISTING

2012........Steven D. Maze for 525 W. Hawthorne Mechanical Upgrade Project, Chicago, Illinois
2012........Pierre Lévesque for Condominium “Les Verrières sur le Fleuve,” La Prairie, Quebec, Canada

RESIDENTIAL

2016........Jonathan M. Heller for the Stack House Apartments, Seattle, Washington
2016........Tom J. Marseille for the Greenfire Campus, Seattle, Washington
2016........Sarah Elizabeth Berseth for the Bishop Henry Whipple Building, Fort Snelling, Minnesota
2016........Daniel Robert for the Altoria/ Aimia Tower, Montreal, Quebec, Canada

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TECHNOLOGY AWARD OF ENGINEERING EXCELLENCE

The Award of Engineering Excellence was created in 1989 to recognize a first place winner of the Society-level Technology Award Competition for an outstanding application of innovative design and effective energy utilization. It is awarded at the judges’ discretion.

1989 -1999……………No award given
2000.…………………Byron H. Bakenhus for Lincoln Electric System, Rokeby Ice Storage Project, Lincoln, NE
2001-2004………………(No Award given)
2005.…………………Frederic Genest for the Mountain Equipment Co-op, Montreal, Canada
2006-2012………………(No Award given)
2013…………………Joe Tai for Research Support Facility, NREL, San Francisco, CA
2014…………………Peter Rumsey for the Packard Foundation Net Zero Energy Headquarters, Oakland, CA
2015…………………(No Award Given)
2016…………………(No Award Given)
2017…………………(No Award Given)
2018…………………Johnathan Rumohr and Jesse Hendershot for Heritage Hall Alumni Center, Kalamazoo, MI

STUDENT DESIGN PROJECT COMPETITION AWARD

Established in 1987, this award recognizes outstanding student projects, encourages students to become involved in the profession, promotes teamwork, and allows students to apply their knowledge of practical design. The first place award consists of a plaque and $2,000 honorarium plus transportation and two nights’ lodging at the meeting where the award is presented.

THE APPLIED ENGINEERING CHALLENGE CATEGORY

2013  Brian Kaufman, Nick Leeburg, Tony Lin, Micah Reich, San Jose State University
2014  Juan Silva, Nelson Echeverry, California Polytechnic State University, San Luis Obispo
2015  Miren Aizpitarte, Cinthya Mendez, Julia Stone, Willis Tang, California Polytechnic State University, San Luis Obispo
2016  Bradley Lulik, Eva Rennie, Brent Yeske, University of Regina

THE SETTY FAMILY FOUNDATION APPLIED ENGINEERING CHALLENGE CATEGORY

2017  Sunghoon Chung, Austin Hochstetler, Sean Bybee, Antonio De Jesus Aguayo, California Polytechnic State University, San Luis Obispo
2018  Iik Wahyu Anggara, Katon Vembriarto Widayaswara, Yoga Hutomo Putra, Mohammad Ilham Akbar, Fahmi Rizaldi, Bandung Institute of Technology

INTEGRATED SUSTAINABLE BUILDING DESIGN CATEGORY

2010  Troy White, Edward Wood, Jaime Gonsalves, Ivan Fernandes
Seneca College, Toronto, Canada
2011  Zhang Qiqi, Qi Te, Chen Yuanyi
Tianjin University, Tianjin China
2012  Dustin Altschul, Prathamesh Chakradeo, Ravik Chandra, Saikrishna Ganesan, Timothy Hertel, Varun Krishnan, Charles Tratton, University of Cincinnati, Cincinnati, Ohio

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2013  Jiayi Qiu, Dalin Si, Yakai Wu, Zhongzhe Wu, Ruijun Zhang, Zhiang Zhang, Xuyang Zhong, The University of Nottingham UK

2014  Elyse Casper, Theresa Lindenau, Terra Moran, Mary Peterson, Martin Reaves, Montana State University

2015  Krestina Aziz, Adam Buchholz, Lee Han, Joel Joiner, Osman Kucuk, Blake Reynolds, Natalie Sherwood, Huy Tran, Alex Wilson, Portland State University

2016  Austin Christianson, Logan Harrell, Gerald Hornik, Travis Kalikapersaud, Jeremy Palavecino, University of Central Florida

2017  Itza Beltran, Matthew Coalson, Karena Edminister, Toby Miles, Samad Syed, Woranart Timsuwan, University of Central Florida

2018  Vasileros Filis, Myrto Ananida, Alexandre Hugo Matthieu, Technical University of Denmark

William McCann, Salvador Ordoñica, Ashutosh Ojiha, Marie Rottschaefer, Siddharth Swaminathan Gbadebo Tobi, The Pennsylvania State University

ARCHITECTURAL DESIGN CATEGORY

2001  Andrew Herland, Troy Jacoby, University of Wisconsin, Milwaukee, Wisconsin

2003  Jacobi Gastile, Angelica Gordon, Ronnie Pride, Jr., North Carolina A&T State University, Greensboro, North Carolina

2005  Michael Oranchak and Keith W. Bryan
Lawrence Technological University, Southfield, Michigan

2006  Scott Poloney and Dan Guith
Lawrence Technological University, Southfield, Michigan

2007  Sonia Carias and Alissa Ogen
Savannah College of Art & Design

2008  Stuart Johnson and Grant Helmkamp
Lawrence Technology University, Southfield, Michigan

2009  Alexandra Gibson, Bazigha Tufail, Justina Jones
University of Kansas, Manhattan, Kansas

HVAC DESIGN CALCULATIONS CATEGORY

2012  John Bisacquino, John Dennis, Travis Westover, Temple University, Philadelphia, Pennsylvania

2013  Jayson Bursill, Natasha Palmer, Angela Walton, Gavin Wong, University of British Columbia

2014  Christopher Erickson, Ian Faulkner, Danny Marshall, Richard Suarez, Kristian Szmanski, Ju Yong Yu, University of Central Florida

2015  Kristin Hanna, Garrett Johnson, Mark Wilder, University of Nebraska

2016  Alexander Brosky, Samarath Joshi, Aubrey McNeill, Silvia Odaya, Cheng Yang, Ziran Yu, University of British Columbia

2017  Wilton Chang, Matthew Le, Aditya Mairal, Austin Stevenson, Suraj Thapa, San Jose State University

2018  Jack Buckley, Madeline Sampsel, Austin Seagren, Christopher Wozney, University of Nebraska – Lincoln
HVAC SYSTEM DESIGN CATEGORY

2001  John Damoth, Leon Greiner, Brian Holton, Sam Lampe, Martin McDonough, John Quilitzsch, Glenn Remington, Steve Turnbull, Ferris State University, Big Rapids, Michigan

2001  Leye Adegbite, Jason Cooper, Kevin Dettling, Ken Frielings, Bill Hoch, Troy Milan, Jeff Oosting, Adrian Subryan, Jeremy Tell, Christopher Weaver, Adam Wilson, Ferris State University, Big Rapids, Michigan

2002  James R. Mallory, Joseph Laws, Michael J. Hahn, Michael J. Laws, Nathaniel Mielke Ferris State University, Big Rapids, Michigan

2003  David Begin, Wayne Belka, Tim Eller, Bill Kangas, Mary Kladder, Troy Milks, Matthew Pedler, Brian Reneker, Ferris State University Applied Technology Center, Grand Rapids, Michigan

2004  Jesse Bigelow, Andy Geem, Gerard Harris, Bob Krieg, Nathon Klein, Mike Sweeney Ferris State University, Big Rapids, Michigan

2005  Brad Green, Bhushan Joshi, John Lindman, Trevor Fink, Ray Wrobel, Joseph Borders Ferris State University, Big Rapids, Michigan

2006  Jesse Fisher and Amy Pastor The Pennsylvania State University, University Park, Pennsylvania

2007  Justin Bern, Jon Gridley, Kevin Kaufman, Jessica Lucas, David Melfi and Yulien Wong The Pennsylvania State University, University Park, Pennsylvania

2008  Gary Schrader, Jeremy Saddison, Ryan Larson, Chad Gydesen Ferris State University, Big Rapids, Michigan

2009  Alyssa Adams, Calvin Douglas, James Gawthrop, Jr., Justin Herzing, Amy Leventry, Michael Smith The Pennsylvania State University, University Park, Pennsylvania

2010  Elyse Widin, William Raschefsky, Chan Kim, Brian Sybesma, Craig Allen California Polytechnic State University, San Luis Obispo, California

2011  Holly Brink, Michael Crabb, James Dougherty, Andrew Gilliam, Gina Halbom University of Nebraska Lincoln, Lincoln Nebraska

HVAC SYSTEM SELECTION CATEGORY

2002  Coury Revan, Jonathan Niksich, Rodney Cook, Scott Breuker, Bruce Calkins Ferris State University, Big Rapids, Michigan

2003  Zachary Brown, Camien Chambers, Scott Houghton, Jason Izbicki, Scott Kaplan, Tom Tacey, Dean Weber, Ferris State University, Big Rapids, Michigan

2004  Larry Good, Scott Huber, Rebecca Mittel Pennsylvania State University, University Park, Pennsylvania

2005  Nick Maffeo, III, Jason Kramer, Dave Peterson Pennsylvania State University, University Park, Pennsylvania

2007  Justin Bern, Jon Gridley, Kevin Kaufman, Jessica Lucas, David Melfi and Yulien Wong The Pennsylvania State University, University Park, Pennsylvania

2008  Kevin Chow, Brandon Damas, Jeremy Fowler, Brandon Frey, Brendon Gleason, Ben Willey Kansas State University, Manhattan, Kansas

2009  Chaowanaphan Leekham, Pakorn Nontiwatwanich, Wiroj Ekwongmunkong, Supayos Suveepattanont, Patarapol Puangkum
Chulalongkorn University, Bangkok, Thailand

2010  Kelly Griffith, James Newman, Phillip Podlasek, Darren Rottinghaus
      Kansas State University, Manhattan, Kansas

2011  Lynn Gualtieri, Evan Oda, Kristin Porter, Navid Saidnia, Jeffrey Wong, Cameron Young
      California Polytechnic State University, San Luis Obispo, California

2012  Adam Buck, Jami Harper, John May, Patrick MacBride, Alaina Williams, University of Nebraska, Lincoln, Nebraska

2013  Garrett Elder, Nathan Love, Nick Theimer, Kansas State University

2014  John Gaito, Katie Helmer, Lexie Oliver, Alex Pint, Megan Walkowiak, Gordon Zimmerman, Kansas State University

2015  Brianna Brass, Matthew Easlon, Mary Kleinsasser, Ben MacKenszie, Rachel Obenland, University of Nebraska

2016  Christian Garcia, Sevan Hovsepian, Asped Khachatoorian, Tade Mirzakhanyan, Miro Zaroukian, California State Polytechnic University, Pomona

2017  Dagmara Cwiek, Tomasz Kolsicki, Karolina Kowal, Barttomiej Tokarzewski, Warsaw University of Technology

2018  Kevin Clark, Madison Hopfinger, Evan Reese, Whitney Luck, Andres Saldivar, Kansas State University

REFRIGERATION SYSTEM DESIGN CATEGORY

2006  Thammarat Wittayakerkkrai, Chaiwat Puttanuntadech, and Kittipong Sookchai
      Chulalongkorn University, Bangkok, Thailand

GOVERNMENT AFFAIRS AWARD

Established in 1988, this award recognizes an individual for outstanding effort and achievement in state, provincial, and local government activities in connection with technical issues important to the Society. Prior to January 2014, this award recognized the activities of an ASHRAE Chapter. The name of the award was changed from the Government Activities Award in June 2015. In June 2018, the name of the award was changed to the Government Affairs Award. The award consists of a plaque for first place winners and transportation reimbursement to attend the meeting, if the award recipient is not otherwise reimbursed by the Society.

1990..............................Orange Empire Chapter
1991..................................St. Louis Chapter
1992..................................Orange Empire Chapter
1993.................................Arkansas Chapter
1994.................................Rocky Mountain Chapter
                                 Minneapolis Chapter (tie)
1995.................................Pittsburgh Chapter
1996.................................Spacecoast Chapter
1997.................................Rochester Chapter
1998..................................No award given
1999..................................No award given
2000.................................Spacecoast Chapter
2001..................................No award given
2002..................................Northern Nevada Chapter
2003..................................Puget Sound Chapter
2004..................................Central Indiana Chapter
2005.................................Cleveland Chapter
2006.................................Detroit Chapter
2007………………………………… Puerto Rico Chapter
2008………………………………… No award given
2009………………………………… Puerto Rico Chapter
2010………………………………….. Mississippi Chapter
2011………………………………… Hong Kong Chapter
2012…………………………………. No award given
2013…………………………………. No award given
2014…………………………………. No award given
2015………………………………….. Robert Craddock
2016………………………………….. Arthur Hallstrom
2017………………………………….. Sam C.M. Hui
2018………………………………….. Roger Chang
2019………………………………….. Meghan K. McNulty

STUDENT ACTIVITIES ACHIEVEMENT AWARD

Established in 1988, this award recognizes a Chapter Student Activities Chairman for service related to the goals and growth of student activities at all levels. The award consists of a plaque and lapel pin.

2000........................ Charles D. Curlin, Jr., Southern Piedmont Chapter
2001................................. No award given
2002................................. Paul Dreater, Anthracite Chapter
2003................................. Michel Bernier, Montréal Chapter
2004................................. Thomas McNamara, Illinois Chapter
2005................................. Samir Traboulsi, Lebanese Chapter
2006................................. Carl McGartlin, Charleston Chapter
2007................................. Jim Toda, Tri-County Chapter
2008................................. Manuel Belino, Philippines Chapter
2009................................. Ashish Kadam, Western India Chapter
2010................................. Nicolas Lemire, Montreal Chapter
2011................................. Clayton A. Lampman, Southern California Chapter
         Harmohindar Singh, North Piedmont Chapter
2012................................. No award given
2013................................. Ather N. Siddiqui, I, Northern Pakistan Chapter
2014................................. Jared Larson, Regina Chapter
2015................................. Adam Parker, Southern Piedmont Chapter
2016................................. Ather Siddiqui, Northern Pakistan Chapter
2017................................. No award given
2018................................. Yumei Mata Hi
2019................................. Michel Hayek

DAN MILLS CHAPTER PROGRAMS AWARD

Established in 1988, this award recognizes a Chapter Technology Transfer Committee Chapter member (Chair or Vice-Chair) who excels in promoting technical and energy activities of the CTT Committee. Prior to 2014, this award recognized a Chapter TEGA Chair who excelled in meeting TEGA goals in technical, energy, and government activities. The award consists of a plaque and lapel pin.

In January 2019, the Dan Mills Technical Award was combined with the Chapter Programs Star Award and renamed.

2000................................. Charles E. Gulledge III, North Piedmont Chapter
2001................................. Christopher Winfree, Southern Piedmont Chapter
2002................................. Christopher Winfree, Southern Piedmont Chapter
2003................................. Meredith T. Krieg, North Piedmont Chapter
2004................................. Henry Manczyk, Rochester Chapter
2005................................. Rajean Blais, Montreal Chapter
2006………………………………………… Wei Sun, Detroit Chapter
2007…………………………………… Bryan Lampeley, North Piedmont Chapter
2008…………………………………… Thomas Kroeschell, Illinois Chapter
2009…………………………………… Oscar Cobb, Detroit Chapter
2010…………………………………….. Jean-Gabriel Joannette, Montreal Chapter
2011…………………………………….. Keith H. Reihl, Houston Chapter
2012…………………………………….. No award given
2013……………………………………….. Eric M. Fullerton, Arkansas Chapter
2014……………………………………….. Lee Huffines, North Piedmont Chapter
2015……………………………………….. No award given
2016……………………………………….. No award given
2017……………………………………….. No award given

CHAPTER PROGRAM STAR AWARD

Established in 2004, this award recognizes the outstanding performance of an individual in the planning and programming of meeting programs at the chapter level which resulted in a significant improvement in the local meeting attendance. The award consists of a plaque and lapel pin.

In January 2019 this award was discontinued and incorporated into the Dan Mills Programs Star Award.

2005…………………. Frank Heine, Twin Tiers Chapter
2006……………….. Dave Shugars, Western Michigan Chapter
2007…………………. Tom Lewis, Nebraska Chapter
2008…………………. Don Hay, Monterrey Chapter
2009…………………. Robert Laneve, Cleveland Chapter
2010…………………. Christopher Ahne, Arkansas Chapter
2011…………………. Keith H. Reihl, Houston Chapter
2012…………………. Marco Ottavino, Toronto Chapter
2013…………………. Eric M. Fullerton, Arkansas Chapter
2014…………………. Heather Schopplein, San Diego Chapter
2015…………………. William P. Lee, Hawaii Chapter
2016………………………. No Award Given
2017………………………. Chun-Sing Wong
2018………………………. Abhishek Khurana
2019………………………. Joe Chow

DONALD A. SILLER REFRIGERATION AWARD

Established in 2013, this award recognizes exceptional performance by a Chapter Refrigeration Chair for planning activities and providing technology transfer on the subject of refrigeration. The form of the award is a plaque.

The name of the award was changed from the Refrigeration ‘R in ASHRAE’ award in June 2015.

2014 …………………….. No award given
2015 …………………….. No award given
2016 …………………….. No award given
2017 …………………….. James Paul Martin
2018 …………………….. Kevin Galbraith
2019 …………………….. Edward P. Bricker

COMFORT COOLING AWARD FOR PROJECT EXCELLENCE

Established in 2004, this award recognizes the designer and the owner of a comfort cooling application which highlights innovation and/or new technologies. The form of the award is a plaque.
The name of the award was changed from the Refrigeration Comfort Cooling Award for Project Excellence in January 2016.

2006……………………Mark Blazis, Kevin Dolder, and Karl Miller
2007……………………No Award Given
2008……………………No Award Given
2009……………………Russell L. Heiken
2010……………………No award given
2011……………………No award given
2012……………………Eric M. Fullerton
2013……………………No award given
2014……………………No award given
2015……………………No award given
2016……………………Andrew B. Pearson
2017……………………No award given
2018……………………No award given

SERVICE TO ASHRAE RESEARCH AWARD

Established in 2006, this award recognizes an individual for excellence in volunteer service to the area of Society research. The form of the award is a plaque.

2006……………………John W. Mitchell
2007……………………Zahib Ayub
2008……………………John W. Andrews
2009……………………Christopher K. Wilkins
2010……………………John A. Murphy
2011……………………Steven T. Taylor
2012……………………Drury B. Crawley
2013……………………Herman Behls
2014……………………No Award Given
2015……………………Iain S. Walker
2016……………………No Award Given
2017……………………Joseph B. Huber
2018……………………Brian Silvetti
2019……………………Jianshun Zhang

GEORGE B. HIGHTOWER TECHNICAL ACHIEVEMENT AWARD

Established in 2006, this award recognizes an individual for excellence in volunteer service in the area of TC/TG/TRG technical leadership and contribution. The form of the award is a plaque.

2006……………………George C. Briley
2007……………………No Award Given
2008……………………No Award Given
2009……………………Paul Miclea
2010……………………Dharam V. Punwani
2011……………………Gary Phetteplace
2012……………………Donald L. Beaty
2013……………………Lucas B. Hyman
2014……………………Gursaran D. Mathur
2015……………………John J. Carter
2016……………………Stephen W. Duda
2017……………………Paul A. Lindahl, Jr.
2018……………………Arthur Hallstrom
2019……………………David Moss
DONALD BAHNFLETH ENVIRONMENTAL HEALTH AWARD

Established in 2006, this award recognizes excellence in volunteer service focused on environmental health issues. The form of the award is a plaque. The name of the award was changed from the Environmental Health Award in 2019.

2006…………………………………….No Award Given  
2007…………………………………….David Grimsrud  
2008…………………………………….Hal Levin  
2009…………………………………….H.E. “Barney” Burroughs  
2010…………………………………….Andrew K. Persily  
2011…………………………………….No Award Given  
2012…………………………………….Steven J. Emmerich  
2013…………………………………….Lawrence J. Schoen  
2014…………………………………….Chandra Sekhar  
2015…………………………………….Jack Spengler  
2016…………………………………….Francis Offerman  
2017…………………………………….W. Gene Tucker  
2018…………………………………….Pawel Wargocki  
2019…………………………………….William P. Bahnfleth

YOUNG ENGINEERS IN ASHRAE (YEA) AWARD OF INDIVIDUAL EXCELLENCE

Established in 2013, this award recognizes the YEA member(s) annually for superior efforts during the preceding Society year in the promotion of the YEA Institute and representation of the 35 and under demographic of ASHRAE. The form of the award is a plaque.

2014.................................Stephanie Kunkel, Rupesh Iyengar, and Jake Kopocis  
2015.................................Nathaniel Boyd, John Constantinide, Eric Sturm  
2016.................................Hao Luo, Kris Tan, Rachel Romero  
2017.................................Erica Moser, Alyse Falconer, Mitesh Kumar  
2018.................................Wesley Stanfill, Pun Mun Wai, Bryce Buchanan  
2019.................................Anuj Gupta, Emma Wildeman

YOUTH OUTREACH AWARD

Established in 2013, this award recognizes the outstanding effort of a member who actively engages a youth audience in their country, region, or local community through science, technology, engineering and mathematics (STEM) activities.

2014.................................No Award Given  
2015.................................Eric Heinrich  
2016.................................Eric Heinrich  
2017.................................James Paul Martin  
2018.................................Heather Schopplein  
2019.................................Cinthya Cecilia Carillo Mendez

DEVELOPING LEADER AWARD

Established to recognize new members who have shown a diverse involvement and commitment to ASHRAE within five (5) years of Associate Member join date.
LOWER-GWP REFRIGERATION AND AIR-CONDITIONING INNOVATION AWARD

Established in 2018, this award recognizes individuals who have developed or practiced innovative technological concepts applied in developing countries to minimize global warming potential (GWP) through refrigeration and air-conditioning management. The form of the award is a certificate.

2019............................................................No Award Given

WOLVERINE-ASHRAE DIAMOND KEY AWARD

Presented annually from 1940 to 1970 by the Wolverine Tube Division, Calumet & Hecla, Inc., this award was given to the author of the best paper published by the Society during the previous calendar year.

1940............................................................Henry P. Pownall
1941............................................................Paul F. McDermott
1942............................................................Charles N. Deverall
1943............................................................John G. Bergdoll, Jr.
1944............................................................David L. Fiske
1945............................................................Daniel D. Wile
1946............................................................Clarence E. Lund
1947............................................................Richard H. Swart
1948............................................................Lloyd A. Staebler
1949............................................................Milo M. Bolst and Richard C. Jordan
1950............................................................William L. Holladay
1951............................................................Daniel D. Wile
1952............................................................Daniel C. Schiavone
1953............................................................Neil E. Hopkins and John J. Seelaus
1954............................................................Ferruccio Rasori
1955............................................................No Award
1956............................................................Dale J. Missimer
1957............................................................James L. Threlkeld and Tamami Kusuda
1958............................................................Jack B. Chaddock
1959............................................................Harold M. Hendrickson
1960............................................................Perry H. Ziel and John S. Blossom
1961............................................................Bruno Morabito
1962............................................................William L. Bryan
1963............................................................Charles A. Whitehurst
1964............................................................William F. Kerka
1965............................................................T.J. Csermely and C.M. Bosworth
1966............................................................G.P. Mitalas
1967............................................................Dr. Hans O. Spauschus and G.C. Doderer
1968............................................................Peter K. Baade
1969............................................................Colin G. Gordon
1970............................................................Frank R. Biancardi and D.P. Darrow

KLIXON AWARD

Presented from 1957 to 1968 to the author of the best paper published in full by the Society during a calendar year on a subject relating to electric motors or controls, the Klixon Award was sponsored by the Metals and Controls Division, Texas Instruments, Inc.

1957-58............................................................Raymond T. Divers
1958-59............................................................H.O. Spauschus and R.S. Olsen
<table>
<thead>
<tr>
<th>Year</th>
<th>Honoree(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959-60</td>
<td>C.B. Sonnino and John F. Harris</td>
</tr>
<tr>
<td>1960-61</td>
<td>C.V. Downing, Jr.</td>
</tr>
<tr>
<td>1961-62</td>
<td>No Award</td>
</tr>
<tr>
<td>1962-63</td>
<td>No Award</td>
</tr>
<tr>
<td>1963-64</td>
<td>No Award</td>
</tr>
<tr>
<td>1964-65</td>
<td>J. Mowry</td>
</tr>
<tr>
<td>1965-66</td>
<td>G.L. Rodgers</td>
</tr>
<tr>
<td>1968</td>
<td>David B. Dibble and Russell E. Wood</td>
</tr>
</tbody>
</table>
JOSEPH F. CUBA AWARD FOR ENERGY RESEARCH

The Joseph F. Cuba Award for Energy Research was presented by the ASHRAE Research and Technical Committee to honor significant accomplishment by a graduate student in energy conservation or renewable energy research.

1985 ...................................Meinrad Machler & Daniel L. Ewert
1987.................................................................Larry W. Kostiuk
1989............................................................James E. Braun