



# THE RAZORBACK REPORT

Arkansas Chapter Newsletter for the  
American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

www.arkansasashrae.org

Volume XIV, Issue VII, March 2003

## The President's Message

By Randy Moore, P.E.

Our chapter leadership continues to prepare for the first electronic chapters regional conference – CRC. Recently, our webmaster, membership promotion, and reception committee members discussed issuing our next “E-Roster”. The 2002-2003 Arkansas ASHRAE Chapter Roster will be our first one presented in electronic format. Our Reception Committee Co-Chair, James Dayer will use the most current Society Roster to update the Chapter Roster. Membership Co-chair, Russell Black, and our Webmaster, Brett Bolan, will take this electronic file and issue our first “E-Roster”. The Membership Article inside the Newsletter has more details on the Roster Committee Activities.

Thanks again to our members/guests and the February Meeting Sponsor, the Trane Company, for a very informative technical session and program on the ASHRAE Standard 90.1. We also look forward to the upcoming TEGA committee seminar for additional educational opportunity for our membership. February was a busy month for our chapter which concluded with the Engineers Week Activities coordinated by our Student Activities Committee. Thanks to Chris Ahne and his committee for their efforts on behalf of the Arkansas Chapter Members.

I am pleased to report additional activity by our Ad Hoc Committee concerning the standard of care for indoor air quality in our public school buildings. We will have our first committee meeting in March to discuss the details for organizing a panel discussion on this very important issue facing our Consulting Engineer members. This committee will meet to determine the format, location(s), panel members, and timing for a panel discussion meeting. Please contact myself or Marshall Moody with any interest or ideas in the first organizing committee meeting.

The Arkansas Organizing Chapter of the US Green Building Council held another meeting recently. This group is moving towards establishing an official chapter of the USGBC and presents an additional opportunity for our chapter membership to be informed on issues relating to green buildings. Please contact Martha Jane Murray, AIA with The Wilcox Group for additional details on the local chapter activities.

The Arkansas Chapter continues to have a great year and benefit from the hard work of our Chapter Leadership and Committees as we prepare to close our year with the 2003 CRC in Fort Worth, Texas on April 24<sup>th</sup> thru 26<sup>th</sup>. Please register early and check out the details for CRC on line at the Fort Worth Chapter website [www.ashrae-ftw.org](http://www.ashrae-ftw.org).

## March Meetings

### Central Arkansas

Date: Wednesday, March 5<sup>th</sup>  
Location: Little Rock Club  
Regions Bank Building  
Cost: \$18.00 / person  
Schedule:  
10:30 AM Board Meeting  
11:15 AM Tech Session  
11:45 AM Lunch Buffet  
12:15 - Program - Barry College - ASHRAE  
1:00 PM Project HI-02-2-1 “Hybrid Desiccant Systems”  
By Mr. Kirk Mescher P.E.

Meeting Sponsor: *Powers of Arkansas*

### Northwest Arkansas

Date: Thursday, March 6<sup>th</sup>  
Location: A Q Chicken  
Springdale, AR  
Schedule:  
5:30 PM Social  
6:00 PM ASHRAE Business / Dinner  
6:30 PM Program - Barry College - ASHRAE  
Project HI-02-2-1 “Hybrid Desiccant Systems”  
By Mr. Kirk Mescher P.E.

Meeting Sponsor: *Powers of Arkansas*

## Northwest Corner

By Marshall Moody

Thank you, to all those who braved the snow to attend the February meeting. The comments on the program evaluations made it apparent that you were all glad that you came. Our next meeting will be held on Thursday, March 6, 2003 at AQ Chicken in Springdale. The presentation is on ASHRAE HI-02-2-1, “Hybrid Desiccant Systems.” Mr. Kirk Mescher with CM Engineering will be giving the presentation.

The meeting will begin at 5:30 PM. Hope you can make it for another evening of good food, fellowship, and important information.

Hope to see you on March 6th!

## February Board of Governors, Officers & Committee Chairmen Meeting Minutes

By John Carter, Chapter Secretary

**Call to Order:** President Randy Moore called to board meeting to order at 10:43. Attendees included: Randy Moore, Rick Sellers, John Carter, Chance Hollingsworth, Eddie Finley, Mike McClellan, Russell Black, John Hodoway, Wade Wetzler.

**Old Business:** Secretary Carter presented the January meeting minutes and the board accepted the minutes as written. Secretary Carter then reviewed last month's action item list. Action Items 1, 2, and 5 were tabled.

**New Business:** President Moore will revise the changes made to the Bylaws for the Chapter meeting submitted by the revision committee. President Moore will ask the chapter members to review Bylaw amendments for an official vote in March meeting. Entire bylaws will be posted on website and available to download and only the amendments will be forwarded to Chapter for review. Brett Bolan modified the website to include information on upcoming TEGA events. Terry Granderson requested five minutes of the Chapter meeting to update Chapter on Senate Bill #54. President Moore then submitted excerpt requirements for the CRC report to applicable committee chairs. Vice President Rick Sellers requested time in the Chapter meeting to announce the upcoming lab design seminar that will immediately follow March Chapter Meeting. He announced that 25 people have all ready signed up. President Moore and Mr. Sellers announced they will attending the upcoming Chapter President-Elect training in two weeks. Treasurer Chance Hollingsworth presented the monthly treasurer's report. The board agreed to disseminate format of the Chapter Roster to only ASHRAE members.

### Action Items:

- 1) Tracy Hayes and bylaw committee will revise format of amendments and forward to Wade Wetzler.
- 2) All Chapter committee chairs are to update request of CRC reporting by April 10, 2003.
- 3) Treasurer Hollingsworth will research tax-filing requirements of chapter.
- 4) Secretary John Carter will forward 1099-INT for Region VIII account to new treasurer.
- 5) Treasurer Hollingsworth will bill one more invoice to outstanding invoice for directory.
- 6) President Moore will organize and develop Roster development sub-committee under the membership committee to develop requirements and implement changes to 2002-2003 Arkansas ASHRAE Chapter Roster.
- 7) Secretary John Carter will email meeting notes to members as well submit them

for the newsletter prior to the next meeting.

**Adjourned:** The board meeting was adjourned at 11:16 AM.

## February Arkansas ASHRAE Chapter Meeting Minutes

By John Carter, Chapter Secretary

**Technical Session:** The technical session was called to order at 11:17 with 31 members in attendance. Mick Swedler began the technical session by presenting the purpose of ASHRAE STD 90.1. Some of the requirements of ASHRAE STD 90.1 include: off hour controls, zone isolation, minimum lighting power densities for building types, individual and multiple component compliance with Standards in alterations/additions, limitations on how much hot gas bypass is allowed, limitation on simultaneous heating and cooling, air side energy recovery, hydronic energy recovery, fan recovery, fan pressure optimization based on air terminal unit damper position vs. duct static pressure, equipment efficiency levels at full and part load conditions, and various state adoptions. Mr. Schwedler also discussed Epact - 1992 requirements that all states must update energy codes to be at least as stringent as 90.1-1999 by 2005.

**Call to Order:** After a break for lunch, the chapter meeting was called to order at 12:06. There were 37 members and 19 guests in attendance. President Randy Moore introduced Terry Granderson who updated the chapter on Senate Bill 45. President Moore then introduced Vice President Rick Sellers who announced next month's TEGA Seminar on lab design that will immediately follow the March meeting. Contact Rick if planning to RSVP. Student Activities Chairman Chris Ahne then announced that ATU is an official Student Chapter and congratulated Wayne Helmer for his involvement in getting the chapter started well. He then announced that engineering week would include a facility tour of the Victory Building and various presentations to local schools. President Moore then requested a show of hands from the Chapter to accept the list of amendments to the Chapter bylaws. President Moore then introduced Mick Swedler who presented the program on ASHFRAE/IESNA 90.1-2001.

**Program:** Mick Swedler began by stating that the purpose of the Standard is to define the minimum requirements of building construction. The Standard does cover the entire building. The scope of the Standard includes envelope, HVAC, service water heating, power and lighting. This presentation focused on HVAC including the simplified approach, prescriptive, and mandatory requirements. There are mandatory requirements for each different type of equipment. Other mandatory requirements for the stan-

dard include thermostatic controls, load calculations, limitations on how much hot gas bypass is allowed, air side energy recovery, hydronic energy recovery, fan recovery, equipment efficiency levels at full and part load conditions. Prescriptive requirements include economizers, simultaneous heating and cooling, air system design and control, fan power, hydronic system design and control, heat rejection equipment. He then discussed the Energy Cost Budget method.

**Adjournment:** The meeting was adjourned at 12:58 PM.

## February Northwest Arkansas Section ASHRAE Meeting Minutes

By John Symonds

The February 6, 2003 Northwest Arkansas Section of ASHRAE meeting was held at Goodson's Restaurant, Fort Smith, Arkansas. Mr. Marshall Moody called the meeting to order at 5:30 p.m. Despite the weather, approximately 16 members and guests were present.

Marshall made the following announcements:

- A) ASHRAE is holding a one-day training session on Standard 90.1 on April 17, 2003 at the Little Rock Holiday Inn Select.
- B) Next Northwest Section meeting will be March 6, 2003 at the Springdale A.Q. Chicken House Restaurant. The topic to be Hybrid Desiccant Systems.

Mr. Jim Bradford introduced the guest speaker, Mr. Mick Schwedler, principal applications engineer with Trane. Mr. Schwedler presented an inside look at the HVAC requirements of ASHRAE Standard 90.1 Energy Standard for Buildings Except Low-Rise Residential Buildings. He discussed the Federal 1992 Energy Policy Act, which covers all buildings and how Standard 90.1 may apply. The applications including the simplified approach for one to two-story buildings less than 25,000 square feet and single zone, the mandatory requirements, which include minimum equipment efficiencies, equipment size restrictions, leakage testing and building commissioning and finally the prescriptive requirements which addressed economizers, re-heat amount limits, air flow limits, cooling tower controls and hot gas bypass limits. Mr. Schwedler indicated that to be in compliance the HVAC systems must satisfy all Standard 90.1 requirements. Finally, Mr. Schwedler recommended the Standard 90.1 users manual as a helpful design guide.

With no further business, Marshall Moody adjourned the meeting at 7:45 p.m.

**TEGA News**

By Tom Hanlon

Well technology awards have moved to the top of our list. It really is time to look around the office for some of those worthy projects. You know, the ones that work so good you never think about them. Seriously, let's get some applications in so we can keep up or tradition of regional award applicants.

After the great 90.1 program at the last meeting, we should have lots of interest in our ASHRAE sponsored Educational Seminar. Our co-chairman Steve Titus, along with Department of Energy have put together a terrific opportunity for all to get this required training. Session will be instructed by Jeff Ross w/ Southface Energy. Flyer is on the web site. This event should be huge, so sign up early.

The Lab Design Seminar for March 5<sup>th</sup> (following our regular meeting) as 35+ signed as of today, with more coming. With our current world situation and the concerns of all of us about Biological and Chemical Weapons this should be a must. There is much about this business we don't encounter and this is a unique opportunity to interact with those that use these facilities we design and build. Just finished an interesting book on this subject. "Demon in the Freezer" is the title. If you get the chance read it. It will really peak your awareness about our participation in this part of our business. Again plan to attend this ASHRAE educational seminar. Flyer is on the web site.

Want to welcome Bob Reynolds PE to the TEGA committee. Bob is HVAC operations manager at UAMS and will be adding his substantial experience to our effort. Bob will take on the interaction of our chapter with the operation and facilities management community. This is an area that our society has charged us to pursue, so here we go. Looking forward to working with Bob and thank him for joining us.

Finally, Terry Granderson has set up our next educational outreach seminar. Will be Thursday May 15<sup>th</sup> @ Pulaski Technical College. Subject will be "System Effect" and will be presented by Ron Spencer PE (Airetech Tulsa) with an assist from Tom Hanlon. More to come next month.

**This Month in Arkansas ASHRAE History**

By James McKinnie

**19 March 1968** - The board met in the evening at the Sam Peck hotel. The nominating committee provided recommendations for the 1968-69 board - Art Pfeifer (president), Bill Goodman (vice president), Dewey Dossett (secretary), Rowe Hill (treasurer), Ron Oxley, Bill Lowrey and Al Davis (board of governors), and Bill Wood for CRC delegate. The board also approved a meal price increase to \$3. After the social hour and dinner, Art Pfeifer presented a technical report on overload and phase failure relays. William Lally of the Zurn company made a very good presentation on "The Causes and Nature of Water Hammer."

**19 March 1974** - The board met at midday at the offices of E.E.R.B. & C. Architects and Engineers. The research committee reported collections totaling \$3,000 to date, and 19 people were reported as registered for the upcoming CRC in Oklahoma City. The social and dinner were held that evening. Ed Stacey presided over three simultaneous technical discussions - Sam Cummings led "double Duct and Variable Volume Systems," Bob Burke led "Air Leakage in Low Volume Systems," and Ed Stacey on "Pros and Cons of Specific Brands."

**15 March 1988** - The board met at the Holiday Inn - Downtown. The first topic was the results of the joint casino party with the local chapter of Women in Construction. The board voted to fund ASHRAE's share of the party expenses from chapter funds, and use all shares of the proceeds as research contributions. The nominating committee recommended the following officers for 1988-1989; John Spain (president), Greg Mills (vice president), Ed Tinsley (secretary), Ed Monk (treasurer), Bill Woodsmall, Tom Anderton and Randy Wyatt (board of governors) and Don Huggins for CRC delegate. After the social hour and dinner, Jim Bradford made a technical report on humidifier control. Frank Tanner of Johnson Controls made the main presentation on recent protocol developments to make digital controls systems communicate with each other.

**Student Activities**

By Chris Ahne

Engineer's Week – February 16-23, 2003

For Engineer's Week we are planning a tour of the mechanical system at the Victory building, designed by Cromwell Architects & Engineers. We invited students from the area high schools, tech schools, and universities and the expected attendance will be around 60 students.

The tour will consist of an introductory talk by John Hodoway about the mechanical system design. We will then split the students into groups and take them to each of five stations where an ASHRAE member will demonstrate:

- 1.) Central plant.
- 2.) Custom air handling units.
- 3.) Rooftop energy recovery units.
- 4.) Operation of a VAV box.
- 5.) Building automation system.

The total tour will last about an hour and a half.

Additionally, a result of inviting schools to the tour and some not being able to attend, we were requested to have in class presentations at those schools. If anyone would like to present engineering as a topic at one of these schools can call me at 661-0621.

We are looking forward to a great event.

## Membership Promotion

By Russell Black

We will soon publish the 2002-2003 Membership Directory via electronic mail. (We are calling it the E-Roster.) However, we will print paper copies of the Membership Directory upon request for anyone who wants a hard copy (or you may print one yourself). Please contact me at 1-800-441-3277 for a printed copy. We are planning to update and resend the E-Roster every six months. Remember that it is incumbent upon each member to maintain his or her own information log in ASHRAE's main computer. Changes in data, e.g., address changes, e-mail changes, phone number changes, etc. must be signed and faxed to ASHRAE Headquarters at fax number 404-321-5478 for processing.

## ASHRAE Region VIII CRC 2003

**April 24-26, 2003**

**Ft. Worth, TX**

for more info go to:  
[www.ashrae-ftw.org](http://www.ashrae-ftw.org)

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## 2002-2003 Chapter Officers

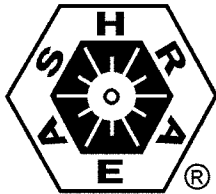
<u>President</u>	Randy Moore	501-280-0404	fax: 280-9200
<u>Vice-Pres.</u>	Rick Sellers	501-374-3731	fax: 374-1802
<u>Secretary</u>	John Carter	501-666-6776	fax: 663-8888
<u>Treasurer</u>	Chance Hollingsworth	501-374-5420	fax: 370-9298

## Board of Governors

Eddie Finley	501-374-5420
Doug Bown	501-227-8181
Steve Titus	501-375-1181
Mike McClellan (Delegate)	501-661-0621
Tracy Hayes (Alternate)	501-280-0404

## Committee Chairs

Directory	Russell Black	501-327-2409
Membership	Chris Shaw	501-280-0404
Student Activities	Chris Ahne	501-661-0621
Programs	Rick Sellers	501-374-3731
Historian	James McKinnie	501-987-7666
Research	John Hodoway	501-372-2900
Honors & Awards	Alan Hope	501-666-6776
TEGA	Tom Hanlon	501-661-0621
Newsletter	Wade Wetzler	501-753-6652
NW Section	Marshall Moody	479-582-8239
Social	Chris Call	501-663-8886
Reception	James Dayer	501-663-8886
Webmaster	Brett Bolan	501-661-0621

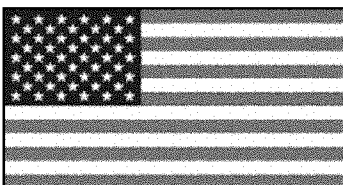


## THE RAZORBACK REPORT

Arkansas Chapter of ASHRAE

P.O. Box 180

Little Rock, AR 72203





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

# Arkansas Chapter Meeting RSVP Form

Company Name: \_\_\_\_\_

Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Signed: \_\_\_\_\_

ROUTING

For reservations to the Central Arkansas Chapter meeting fax this form by **Friday, February 28<sup>th</sup>** to 501-374-1802 *Attn: Rick Sellers*

For reservations to the Northwest Arkansas Chapter meeting fax this form by **Monday, March 3<sup>rd</sup>** to 479-582-4747 *Attn: Marshall Moody*

MEMBER NAME (PLEASE PRINT)	CENTRAL March 5 <sup>th</sup>	NW ARK March 6 <sup>th</sup>	EATING (Y or N)

**NOTES:** Please fax this form to the name and fax number as referenced above  
 The meal is no cost to student members, however an RSVP is necessary.  
 All "no shows" will be responsible for the cost of their meal.  
**In order to provide you with the best service for your Chapter's money, it is necessary to RSVP for each meeting.**

## March Program Summary

by: Rick Sellers, 2002-2003 Vice President/Program Chairman

### Barry College ASHRAE Project HI-02-2-1

Kirk T. Mescher, P.E.

Barry College in Rome Georgia was founded to educate the people of the North Georgia Mountains. Ms. Martha Berry founded the school and befriended such turn of the century industrialists as Henry Ford and Bulow Cambell. Mr. Ford in particular took a liking to the school and became the benefactor to 250,000 sq. ft. of classrooms, dormitories and administration area. In the early 1920's the Ford complex was created on campus. Artisans from Italy were brought in to lay the limestone for the gothic monument designed by architects in Boston.

The 1970's brought about the need for more creature comforts and air conditioning was added to the buildings. The saga of mold and moisture degradation was about to begin. In 1998, a ventilation system was added to the wonderful structure, which controlled the space humidity, lowered system operating costs and met the requirements of ASHRAE standard 62.

The lessons learned and the design of the systems necessary to protect and preserve these marvelous buildings and the occupants are the topic of this discussion.

With over 20 years experience in the engineering field, Mr. Mescher is a principal and founding partner of CM Engineering, Inc. Mr. Mescher has served as project manager and lead designer on numerous mechanical and electrical projects that include plumbing, HVAC, lighting, electric power, fire alarm, and fire sprinkler systems. Specific areas of expertise include air-to-air energy recovery, hot and chilled water, water-source heat pump systems, single and three-phase power distribution, various types of lighting systems, and commissioning. His projects range in size from small lighting modifications to complete M/E/P design for large multi-story buildings.

# Arkansas ASHRAE Chapter Charter and Bylaws

Periodically, our chapter is required to update our Charter and Bylaws on file with Society. This year we formed a committee of five members in good standing to review our Charter and Bylaws and make recommendations for the changes. We have been following the guidelines for revision as outlined in Article X of the bylaws. Thus far the committee has reviewed the bylaws and made a summary of revisions for consideration by our Chapter. At our last meeting, the membership voted to accept the recommendations of the committee and we have posted the revisions on the website and are transmitting them to the membership for review and additional comments which will be submitted at our next meeting. At our next meeting we will vote to accept the committee revisions and any additional changes and will schedule a vote to accept the revised Charter and Bylaws at our April Chapter Meeting. Here's Article X and the revisions to the bylaws from the committee. For a complete copy of Charter and Bylaws with revisions, please go to the Chapter Website at [www.arkansasashrae.org](http://www.arkansasashrae.org).

## ARTICLE X - AMENDMENTS

10.1 Powers and Limitations. All Articles of these Bylaws shall be subject to alteration or repeal, consistent with the Certificate of Consolidation, Bylaws, and Rules of the Board of Directors of the Society and applicable tax regulations for non-profit organizations or corresponding provisions of applicable tax laws.

10.2 By Society. Amendments to these Bylaws set forth in written directives of the Secretary of the Society shall be adopted by a majority of the Board of Governors. Written copies of said amendments shall be sent by the chapter secretary to all members, or an officer of the Chapter shall read said amendments at the next succeeding chapter meeting.

10.3 By Chapter. Amendments to these Bylaws may also be initiated by a written resolution of a majority of the Board of Governors or by not less than five (5) members in good standing with voting privileges and may be presented at any meeting of the Chapter. If approved by a majority of the members present, the chapter secretary shall mail copies of the proposed amendments to all members not less than seven (7) days before the next succeeding meeting. If approved by a two-thirds (2/3) vote at such meeting, the chapter secretary shall forward such amendments to the Secretary of the Society for approval by the Charter and Bylaws Committee of the Society and review by the Regional Chair. Any amendments shall become effective only upon receipt of written notice of approval by the Charter and Bylaws Committee of the Society.

### Amendments to Charter and Bylaws

ARTICLE VII – AMENDMENTS - 7.3 Amendments to this Constitution may also be initiated by a written resolution of a majority of the Board of Governors or of not less than five (5) members in good standing with voting privileges, presented at any meeting of the Chapter. If approved by a majority of the members present, the Secretary shall **mail** (*revise to read "transmit"*) copies of the proposed amendments to all members not less than seven (7) days before the next succeeding meeting.

BYLAWS OF THE ARKANSAS CHAPTER OF THE AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC. APPROVED BY THE SOCIETY:

### ARTICLE III - MEETINGS OF MEMBERS

3.1 Regular Meetings. Meetings of the Chapter shall be held on at least a monthly basis from **October** (*revise to read "September"*) through May at such time and place as is prescribed by the Board of Governors.

3.4 Notice of Meetings. Timely written notice of all meetings shall be sent **by the Secretary** (*revise to read "via the Newsletter"*) to all members setting forth the place, date and hour of the meeting and, in the case of a special meeting, the purpose thereof.

### ARTICLE V - BOARD OF GOVERNORS

5.2 Composition. The Board of Governors of the Chapter shall consist of the officers, **the most recent available Past President** (*revise to read "the Past President and past past President"*), and a minimum of **two** (*revise to read "three"*) members elected pursuant to Article VII hereof.

5.5 Notice of Meetings. Timely written notice of all meetings shall be sent **by the Secretary** (*revise to read "via the newsletter"*) to all members setting forth the place, date and hour of the meeting and, in the case of a special meeting, the purpose thereof.

### ARTICLE VI - OFFICERS

6.1 Titles. The officers of the Chapter shall be a President, a President-Elect, (**strike: a Vice President**), a Secretary, and a Treasurer.

6.4 The President-Elect. The President-Elect shall automatically succeed to the office of the President at the conclusion of the President's term of office. In the absence of the President, the President-Elect shall exercise the powers and perform the duties of the President. In addition, the President-Elect shall make the committee chair (*add: and Co-Chair*) appointments sufficiently far in advance of the Chapters Regional Conference as to permit attendance by the appointees at CRC workshops in the period prior to appointees' active participation as chairs of the Chapter Committees. Chair designees of such committees as Student Activities; Membership Promotion; (**strike: Refrigeration**); Research Promotion; Technical, Energy and Government Activities; (*add: Historical: Honors & Awards: Newsletter: Webmaster;*) and Chapter Programs should be especially encouraged to attend CRC meetings. Prior to the annual meeting, the President-Elect shall complete the appointments by naming at least two (2) committee members to each of the standing committees of the Chapter.

*(Strike: paragraph 6.5 and revise numbering as noted)*

**6.5 The Vice President. In the absence of the President and the President-Elect, the Vice President shall exercise the powers and perform the duties of the President.**

**6.6** (*revise to 6.5*) The Secretary.

**6.7** (*revise to 6.6*) The Treasurer.

**6.8** (*revise to 6.7*) Additional Duties.

### ARTICLE VII - NOMINATIONS, ELECTIONS, VACANCIES, AND REMOVAL

7.2 Duties of Nominating Committee. The Nominating Committee shall select from the members eligible to hold office one candidate for each

office except President, and for each member to be elected to the Board of Governors and shall obtain from each candidate a **(strike: written)** statement that the candidate is a member in good standing in the Society and consents to stand for election.

7.5 Voting and Election. Not less than ten (10) days prior to the **next** (*revise to read "April"*) meeting, the Secretary shall send a mail ballot, in the case of elections by mail, or a proxy statement, in the case of elections at meetings, to all members with voting rights. In the case of elections at meetings, the President shall appoint three (3) tellers to assist in conducting the election. The Board of Governors or the tellers, if any, shall promptly tally all votes. The candidate receiving a majority of the votes cast for each respective office shall be declared elected. If there is a tie vote, there shall be a run-off election. (*Add: In Lieu of mail ballots, a vote by the majority of members present at the April meeting shall elect Nominees to respective positions.*)

## ARTICLE VIII – COMMITTEES

8.3 Standing Committees. Standing Committees are mandatory and are broken into two categories: those tied into the CRC and those essential to the Chapter operation. (a) Committees tied into the CRC are the CRC Action; Student Activities; Membership Promotion; **(strike: Refrigeration)**; Research Promotion; Technical, Energy and Government Activities; Chapter Programs; (*add Webmaster*); and Honors and Awards. (b) Committees essential to the Chapter operation are Auditing, Nominating, Reception, **(strike: Publicity, Attendance, Publications or)** (*add: Directory*); Newsletter, Historical, (*add: Northwest Section*), and **Special Events** (*revise to read: Social*). The duties and functions of each Standing Committee (several of which may be combined under a single chair) are as follows:

8.3.2 Student Activities Committee. The Student Activities Committee shall assist and cooperate with other technical and scientific organizations to influence pre-college (K-12) education in math and science; shall assist in the formation and/or continuing operation of student branches of the chapter; and shall assist with chapter participation in continuing education courses; (*add: Award Scholarships*) and related activities. The Chair of this Committee, or a designated substitute, is expected to attend the CRC Meeting.

8.3.4 Refrigeration Committee. The Refrigeration Committee, (*add: subcommittee of TEGA*) shall promote the refrigeration activities of the Society by promoting the interests and endeavors of those members whose primary concern is refrigeration;

8.3.5 Research Promotion Committee. The Research Promotion Committee shall promote the research activities of the Society by conducting an annual campaign to obtain investments in ASHRAE Research, and shall encourage original and independent research by the members in the sciences of heating, refrigeration and air-conditioning, and in conjunction with the Program Committee, shall encourage lectures, demonstrations and discussions on technical topics of interest for presentation at Chapter meetings. The Chair of this Committee (*add: shall be the immediate past President*), or a designated substitute, is required to attend the CRC Meeting and Special Regional Committee Meeting when called by Regional Vice Chair for Research Promotion.

8.3.7 Chapter Programs Committee. The Chapter Programs Committee shall make arrangements for speakers for programs and technical sessions at chapter meetings including speaker's requirements for equipment, accommodations and travel arrangements, and acting as host throughout the meeting. The committee shall coordinate the efforts of the chapter by making arrangements with area educational institutions for continuing education courses and develop an active "Speakers Bureau" to present talks and seminars to chapters and regions. The chair of this committee (*add: shall be President-Elect*), or a designated substitute, is expected to attend the CRC meeting.

8.3.8 Honors and Awards Committee. The Honors and Awards Committee shall consist of a chair and at least two (2) additional members, preferably past chapter presidents. The Honors and Awards Committee shall promote the recognition of outstanding chapter members within the chapter, region, Society, associated societies and the community. The committee shall submit names of chapter members to ASHRAE and other organizations for honors and awards given by ASHRAE and other organizations. The chair of this committee, or a designated substitute, is expected to attend the CRC meeting. (*Add: CRC Delegate shall be the Co-Chair of this committee.*)

8.3.11 Reception Committee. The Reception Committee shall encourage fellowship among members and shall extend cordial greetings to guests and new members of the Society. (*Add: The Reception Committee shall maintain current name badges for members attending meetings*)

**(strike entire paragraph)** 8.3.12 Publicity Committee.

**(strike entire paragraph)** 8.3.13 Attendance Committee.

8.3.14 (*revise to 8.3.12*) **(strike: Publications or)** Newsletter Committee. The **Publications** (*Revise to read "Newsletter"*) Committee shall obtain news of interest to the Chapter members and supervise the publishing of the Chapter newsletter.

8.3.15 (*revise to 8.3.13*) Historical Committee. The Historical Committee shall collect and safeguard facts, photographs, records and other memorabilia pertinent to the history of the Chapter.

8.3.16 (*revise to 8.3.14*) **Special Events** (*revise to read "Social"*) Committee. The **Special Events** (*revise to read "Social"*) Committee shall handle the arrangements for any special events to be sponsored by the Chapter, or for other events to which the Chapter membership has been invited.

8.3.17 (*revise to 8.3.15*) Chapter Section Committee. When a chapter area is defined that is not being provided chapter services, the chapter may form a Chapter Section Committee to start and maintain chapter sections within the chapter area. The Chapter **President** (*revise to read "President-Elect"*) shall name a section representative for each section who will maintain liaison with the chapter.

*(Add paragraph 8.3.16) Webmaster. The Webmaster shall maintain Chapter Website as directed by the Board of Governors.*

8.7 Attendance at Board Meetings. Committee Chairs shall attend the meetings of the Board of Governors **(strike: when so requested by the presiding officer, but and shall not)** (*revise to read "and shall"*) be entitled to voting rights at such meetings.

## ARTICLE IX - CHAPTERS REGIONAL COMMITTEE

9.1 Election of Delegates. The Board of Governors-elect shall elect from among its members one delegate and one alternate to the Chapters Regional Committee. **(Strike: At least one of said delegates shall be an officer-elect of the Chapter. The Delegates shall be announced at the annual meeting of the Chapter.)** The names of such delegates shall be certified in writing by the Secretary to the Secretary of the Society and the Regional Chair by the first day of the following June. (*Add: In Lieu of election, Board of Governors shall present the past President as Alternate and past-past President as Delegate for vote by the members present at the April meeting.*)