

CHAPTER MEMBERS PRESENT AT THE DECEMBER MEETING

<u>Name</u>	<u>Affiliation</u>	<u>Name</u>	<u>Affiliation</u>
Kaz Inouye	Kasin, Guttman & Assoc.	Joel Frey	Norman S. Wright Co.
Jack Kniveton	Norman S. Wright & Co.	Max Wolff	Dill & Sederberg
Dick Friedman	Engineered Air	Dan Vandament	
Don Haddon	Engineered Air	K. B. Fitz	Bechtel
Ken Tong	Bechtel	Gino Colacchia	University Mech.
Joe McQuillan	McQuillan Engineers, Inc.	LeoBus Pumphrey	University Mech.
Howard Friesen	Yamas	Dick Porter	Yamas
Don Delaney	Yamas	Art Gamble	T. A. Baldwin Inc.
Charles Hardeman	C. S. Hardeman, Inc.	Tom White	American Standard
Tom Campbell	Owens Corning Fiberglas	Con Whittlesey	
Jim Breese	J. L. Breese	Leo Trottzry	McKee Engr.
K. Guttman	Kasin, Guttman & Assoc.	John L. Brose	The Brose Co.
Wanda Berry	Wilsey and Ham	Hendrick J. Moruo	S.O.M.
Helmut Sommer	Bechtel	Gene DeWree	Fisher/Mission
Howard Dauphinee	Jenkins Bros. Valve Co.	Jim Holden	Valley Sht. Mtl.
Chuck Kopf	Beliloue Co.	Pete Tidmarsh	York
F. M. Palacios	US Postal Service	Subhash Datta	Skidmore, Owings & Merrill
H. J. Shastany	York	Bob Swezey	Air Filter/Control
Bob Roach	Yamas	Reid Chappell	Stanford Hospital
Hank Lunsman	Leonard W. Lewis	Vic Bach	Western Plumbing & Htg. Inc.
Karl Baldwin	Bechtel	David Waterworth	P G & E
Hunter McLaughlin	Nuclear Cooling, Inc.	George Sharkey	U. S. Navy
Charlie Nadig	Trane	Lewis Brooks	Hussmann
John D. deJesus	Northstate/Fedders	Keith Lescure	A. R. Peterson & Sons
Tom Gilbertson	L & H Air-Co	Steve Sprague	Charles & Braun
Carl H. Jordan	Skidmore, Owings & Merrill	Ron Gifford	Charles & Braun
Dick M. Glumac	Glumac & Webster	Dave Rifkin	Tempco Equip. Co.
Eric Roberts	Retired	James Taylor	A & B Metal Products
Jack A. Palmer	Calif. Hydronics Corp.	Laurie	Material Survey
Lewis S. Pollock	Ashrae	Don Bryant	
Dick Charles	Charles & Braun	D. G. Burr	Bechtel
Keith Burrows	Bechtel	John May	Kaiser Permanente
Richard E. Gee	Bechtel	Bob McAfee	Yamas
Gene Valerio	Air Filter/Control	Don Bradshaw	Owens Corning Fiberglas
Charles Tarnoff	Allied Air Products, Inc.	Greg Braak	Johnson Controls
Dieter C. Meissner	Cal-Air Conditioning	Dennis Gueszynshi	Johnson Controls
Ed Merino	Hess, Greiner & Polland	Ray Carrillo	Johnson Controls
Richard Ronnow	Linford Air & Refrig.	Dick Dundas	Bechtel
Larry Carr	York	Mitch Allert	Trane
K. Soberg		Arel Berrier	Calif. Hydronics
		Lyle Schuelke	L. O. Schuelke Co., Inc.

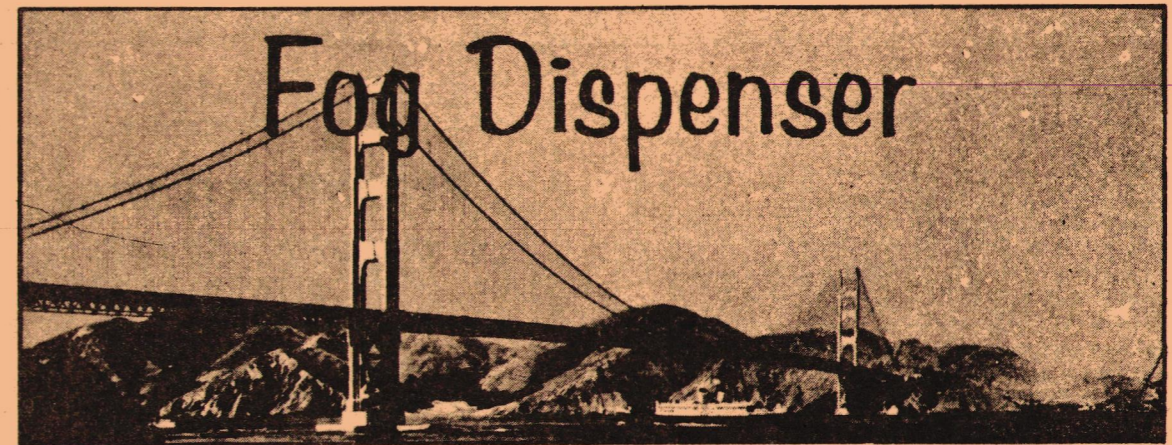
GUESTS

Arnold Bletniksky	G. L. Gendler
Harding Jung	Bechtel
Michael S. McClure	University Mechanical
Cyr Sjoberg	J. L. Myers Co.
Suresh Shirdesani	Sun Valley, Idaho
Mike Devine	Stanford Hospital
Ray Myers	Bechtel
P. Lambros	Kaiser Foundation
Michael Rubio	Yamas
Charlie Lambert	Bechtel

TREASURER'S REPORT FOR JANUARY

<u>Month Ending</u>	<u>Income</u>	<u>Expenses</u>	<u>Members Equity</u>
10-31-74	\$540.00	\$517.32	\$3192.34
10-30-74	\$478.35	\$405.85	\$3289.84

Submitted by most respectful Treasurer Gene Valerio



GOLDEN GATE CHAPTER



ASHRAE

VOLUME XIV -- NO 4

JANUARY 1975

PROGRAM COMMITTEE CHAIRMAN - JACK PALMER

The Fourth regular meeting of the Golden Gate Chapter for the 1974-75 year will be held at the Engineer's Club in the Hong Kong Bank Building, 160 Sansome Street, San Francisco, on Thursday night - January 9, 1975. The Social Hour will begin at 5:30 with dinner at 6:45 PM.

Subject: "HOW THE NEW AMCA STANDARD 500 AND ITS CERTIFICATION PROGRAM WILL AFFECT THE USE OF LOUVERS AND DAMPERS IN FUTURE CONSTRUCTION"

Speaker: Richard J. McKnight, Chairman of the AMCA Publicity Committee

JANUARY WORKSHOP

Bob Phillips, Chairman
January 9, 1975

6:00-6:45 PM
Upstairs

"ALL ABOUT THOSE BEAUTIFUL LINES!"

In the event that you've been living in some lost cave for the past few years, you may not know about the automatic drafting systems which have come into being.

Mr. Ed Morton, with the Calma Company of Sunnyvale, manufacturers of automatic drafting (or computer graphics) will tell us what its all about. How an automatic drafting system can be a time saver, and what it costs.

Come join us and get with the latest electronic age developments!

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337 Roebling Road

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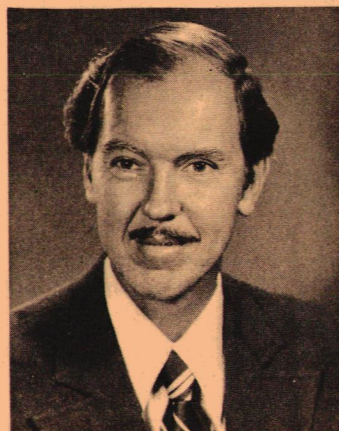
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President's Corner
RICHARD A. CHARLES



Published monthly by the Golden Gate Chapter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, c/o Grace Hackett & Assoc., Jack Tar Hotel, 1255 Post Street, San Francisco, California — 673-3850

OFFICERS AND BOARD OF GOVERNORS

1974-75

Richard A. Charles President
 Jack Palmer Vice President
 Carl Jordan Secretary
 Gene Valerio Treasurer

BOARD OF GOVERNORS

Lewis Pollock
 Tom Gilbertson
 Dick Glumac

COPY DEADLINE

In order to meet our publication dates, we have established the following as the last possible dates that copy for the Fog Dispenser can be in the editor's hands.

Meeting Date	Copy Deadline
9 Jan. 1975	20 Dec. 1974
6 Feb. 1975	24 Jan. 1975
6 Mar. 1975	21 Feb. 1975
3 Apr. 1975	21 Mar. 1975
3 May. 1975	18 Apr. 1975
5 June 1975	23 May 1975

KNOW A PROSPECTIVE NEW MEMBER?

Contact Membership Chairman:

Dart Rinefort - Carrier

(415) 658-6717

MAIL OR PHONE NEWS TO:

Jim Holden, Editor
 FOG DISPENSER
 161 Starlite Street
 So. San Francisco, Ca 94080
 Phone 871.8292

I trust your Holidays were very happy, and that you are looking forward, as I am to a happy and prosperous New Year.

The Bay Area Engineering Society's Committee for Man Power Training (ESMPT) is starting a new drafting training program for minorities around the end of January. This has been a very successful program in training minorities into the engineering profession via the drafting medium. Our office has had one graduate, and we are presently training one young fellow who is working out very well. Most of these applicants are well qualified to enter the drafting field, and are very much interested. They need this medium in order to break into our profession. Those of you who are interested in taking on a trainee please contact Mr. Barker at ESMPT at 781-1392.

Our International President of ASHRAE, Dave Rickleton has asked each one of the chapter presidents to furnish him a list of the many hours of individual and company time that members give in their working on ASHRAE business. I am asking each of the committee chairmen if he will furnish me with the approximate number of hours that he and his committee members will have spent doing ASHRAE business during the 1974-1975 year which began in June, 1974, and ends in June, 1975.

The Education Committee, headed by Bob Braun is actively pursuing the project of slide presentations that will be used for the different career guidance meetings that will be held in high schools and colleges. We are making a special call for 35mm slides depicting the different phases of our business, such as contracting, the estimating portion, the actual shop fabrication, and service. In engineering we are looking at drafting and design, observation of construction, sales engineers and their activities, and any other factors of our industry that can be used to explain what we do. Please call Bob Braun and volunteer what slides you might have available, as soon as possible.

We have now set the date and subject of our 1975 seminar. It will cover the mechanical and electrical aspects of our industry, and will begin on April 1, 1975, running six consecutive nights. You will receive a full announcement of the subjects and speakers sometime during January.

MINUTES

The meeting was called to order at 7:45 p.m.

Motion, second and pass: Approved minutes of 11/7/74 meeting.

President Charles presented Life Member Certificates to Eric Roberts and Ed Collins.

Dick Friedman reported that the Uniform Mechanical Code, according to an interpretation by IAPMO, required that supply ducts located in ceiling return air plenums must be insulated.

President Charles reported the death of Ernie Hawk.

President Charles reported that the annual social will be on the first Saturday of May; there will be a bay boat cruise at \$30.00 per couple; and will be conducted jointly with the Sacramento chapter.

After a short break, the meeting resumed with raffle awards.

Richard Gee and Keith Burrowes, both of Bechtel Power Corporation, made a presentation on H.V.A.C. considerations in nuclear power plants. Some of their points were as follows:

Thirty-three percent of the energy consumed in the United States is attributable to commercial and industrial building; and fifty percent of that energy is consumed by H.V.A.C. systems.

The first nuclear power plant was constructed in 1951; there are now approximately 50 such plants; there are an additional 60 under construction; by the year 2000 there should be approximately 1,000 nuclear power plants in the United States.

Nuclear power plants fall in the following categories:

1. Pressureized water reactors.
2. Boiling water reactors.
3. High temperature gas-cooled reactors.

The first two types are by far the most common.

The steam generated by the plants is radioactive.

General Electric is the only manufacturer of boiling water reactors. Babcock-Wilcox, Combusion Engineering, and Westinghouse are the manufacturers of pressureized water reactors.

Ventilation criteria include the following:

1. Heat removal
2. Satisfactory operational environment for equipment.
3. Control of airborne contaminants.
4. Comfort for operational personnel.
5. Protection of the public and the environment from accidents.

A typical 1,200 megawatt pressureized water reactor has a heat emission of 33,700 BTU's per hour.

AEC develops safety standards; ASME and ANSI have been interpreting these standards.

All H.V.A.C. equipment is duplicated by redundant 100% stand-by equipment. The two pieces of equipment are separated by missile barriers and other means to prevent fire and water damage.

A borated sodium hydrozate spray chemically controls fission materials.

Much of the equipment is water-cooled; the fans are direct drive.

If the carbon exhaust filters overheat as a result of entrapped radioactive materials, a fire may result. Diluge fire protection systems are employed.

Cooling and ventilation are accomplished with air handling units and chilled water coils.

Since steam heat is not available from the nuclear plant until construction is completed, heating during the construction, and after, is accomplished with hot water boilers.

Jack Palmer reported that the next meeting will be on January 9, 1975, and the subject will be new AMCA Standards on Dampers and Louvers.

Respectfully submitted,

Carl H. Jordan, Secretary

The November Chapter meeting has been designated "New Members" Evening and provides us with the opportunity to bring, greet and get acquainted with prospective or new members. Membership growth is most successfully achieved through active participation by all Chapter members. The Membership Committee solicits your help and support in encouraging prospective members to join the Society and the Golden Gate Chapter.

BRING A PROSPECTIVE NEW MEMBER WITH YOU TO OUR NOVEMBER MEETING! As an added incentive, the prospective new member's dinner ticket will be paid for by the Chapter.

WELCOME NEW MEMBERS! The following individuals have either applied for membership or transferred in from another Chapter. We are looking forward to meeting each of you and encourage your participation in our Chapter activities.

Transferred In

Frank Collins
George Clark
Glenn Montoani
Michael McElya
Jon Williams (student)
Davood Abdollahian (student)
Hon To Luk
Raymond Weser
Jerry Gentry
Alexander McCulley, Jr.
Arshad Sheikh
Alfred Eynon
Lester Boyer
Barry Brooks
Kersi Dalal
Daniel Wigodsky (student)
Michael Parker (student)
Frank Irwin
Dick Frenzel
Dinesh Chandiook
Prudente Aclan
Thomas Adams
Thomas Campbell (student)
Thomas Cassel (student)
Frank Neal
"Bus" Pumphries

New Members

Mark Walton
Ed Beeching
William McVickers
Dennis Stevens
George Dale
Howard Mah (student)
Bob Denney
Guillerme Ortega (student)
Paul Dumlae (student)
Richard Hum
Abraham Bechar

New Members

Bill Ng
Warren Blazier
Gene West
Sven Olund
John Mersch
Peter Chan
Pete Filios
Steven Miller (student)
Antoni Gheorghevici
Robert Hren
Paul Cavanagh
Robert McKee
Abraham Mendoza
William Messic
Toddy Wong
Gino Collachia

Memberships in Process

Michael Robertson
Karam Sawwan
Arlen Allenger
Gus Schjaerve
Donald Loeblein
Jerry Bennett
Marc Shea
Douglas Honsinger
Richard Byers
John Davis
Erland Jannesson
Ralph Roth
Wayne Clapper
Robert Schnurbusch
Bahram Fatemi
Dan Wong
Leo Troitzky
John May
Bob Dunbar

Again, welcome. Hope to see you all at the November meeting.

MEMBERSHIP COMMITTEE: Dart Rhinfort, Chairman: Rich Wells, Dick Frenzel
Chuck McLaughlin, Roy Anderson

ATTENDANCE ROSTER OCTOBER 1974, MEETING ASHRAE GOLDEN GATE CHAPTER

Due to circumstances arising from the change of command in the roster department we are unable to furnish addresses or a differentiation between members and guest in this issue.

Irving Alger
Roy Anderson
George Aronovsky
Dave Attard
Vic Bach
Karl Baldwin
C. D. Bayes
Bernie Beckius
Ed Beeching
Arel Berrier
Birl Bogkawright
Dan Bradshaw
Bob Brawn
John Brose
Don Bryant
Gil Carlson
Barbara Carlson
Larry Carr
Dick Charles
Philip Chien
Ward Clark
Gino Collachia
Ed Collins
F. K. Crouch
Jim Curtin
Bud Dauphnee
Don Delaney
Rusch Delong
Kevin Dowling
Al Eynon
Fred Farmer
Bahram Fatemi
Bud Ferry, Jr.
Dick Frenzel
Noel Frey
Dick Friedman
Dick Fujioka
Gus Gendler
Roy Gifford
Tom Gilbertson
Don Haddon
Wm. T. Hagerman
Dave Hara
Charlie Hardeman
Kenneth Hill
Jim Holden
Kaz Inouye
John DeJesus

Carl Jordan
Rod Kaida
Larry Kelly
Jack Kniveton
Morris Konnoff Jr.
Chuck Kopf
John Kraft
Jim Lallas
Jim Lazor
Rich Lead
Keith Lescure
Bill Linder
Ken Lloyd
Mike McElya
Chuck McLaughlin
Bob Moon
Ugo Muldor
Tom Namberumal
Charles Nadig
Jack Palmer
Bob Phillips
Robin Piramide
Lew Pollack
Leo Pumphrey
Gil Ramin
Mike Reichlin
Clyde Wilson-Reid
Gerry DeReus
Cordula Riley
Dart Rhinfort
A. G. Schjovive
George Sharkey
Hank Shastany
Larry Shea
Marc Shea
Joe Shelby
Helmut Sommer
Steve Sprague
Stuart Stevenson
Bob Swezey
Chuck Tarnoff
Pete Tidmarsh
Gene Valerio
Dan Vandament
D. Waterworth
John Werner
Tom White
Sam Yamoto

CHAPTER MEMBERS PRESENT AT THE JANUARY MEETING

Name	Affiliation	Name	Affiliation
Kaz Inouye	Kasin, Guttman & Assoc.	Max Wolff	Dill & Sederberg
Dan Vandament	Consulting Engineer	Ken Tong	Bechtel
Gino Colacchia	University Mech.	Bus Pumphrey	University Mech.
Howard Friesen	Yamas	Dick Porter	Yamas
Tom White	American Standard	Jim Breese	J. L. Breese
Gene DeWree	Hatter/Fisher/Mission	Chuck Kopf	Beliloue Co.
Pete Tidmarsh	York	F. M. Palacios	US Postal Service
H. J. Shastany	York	Bob Swezey	Air Filter/Control
Bob Roach	Yamas	Vic Bach	Western Plumbing & Htg.
Karl Baldwin	Bechtel	Charlie Nadig	Trane
John D. deJesus	Northstate/Fedders	Keith Lescure	A. R. Peterson & Sons
Steve Sprague	Charles & Braun	Carl H. Jordan	Skidmore, Owings
Roy Gifford	Charles & Braun	Dave Rifkin	Tempco Equip. Co.
James Taylor	A & B Metal Products	Laurie Ingram	Material Survey
Jack A. Palmer	Calif. Hydronics Corp.	Lewis S. Pollock	Trane
Don Bryant		Dick Charles	Charles & Braun
Bob McAfee	Yamas	Gene Valerio	Air Filter/Control
Dieter Meissner	Cal-Air Conditioning	Ed Merino	Hess, Greiner & Pollard
Dick Dundas	Bechtel	Dart Rinefort	Carrier
Tom Conroy	Clyde Equip. Co. Inc.	Kenneth Hill	Kaiser Engineers
Roy L. Formby	PG&E	Allen Wicks	SMACNA
Mike Grimes	Norman S. Wright	Ken Lloyd	Lillard Co.
Barney Baxter	Robt. B. Liles, Inc.	Robert Denney	ACCO
Bill Hancock	PG&E	Irving Alger	GM & TR Simonson
Larry Shea	Shea Equipment Co.	Bill Hagerman	Trane
Herb Duncan	Flame Air Inc.	Gerry Yaffe	Tempco Equip. Co. Inc.
Chuck McLaughlin	McLaughlin Associates	Rich Wells	Montgomery & Roberts
Pat Patterson	Pameco-Aire	Fred McCracken	F. McCracken & Assoc.
Richard E. Gee	Bechtel Power Corp.	Dan Kennedy	Scott Company
Roy G. Anderson	City College	Al Eynon	G. L. Gendler & Assoc.
Tom Gilbertson	L & H Air-Co.	Abe L. Mendoza	Bentley Engineers
Bob Phillips	Kennedy Engineers	Robert Voelz	
Art Gamble	T. A. Baldwin Co. Inc.	Charles Tarnoff	Allied Air Products, Inc.
Dave Hara	Allied Air	Ray Wolford	Materials Survey
Roy A. Skover	Lennox	Dick Frenzel	E. B. Ward Co.
Andrew E. Feiner	Tempco Equip. Co. Inc.	D. G. Burr	Bechtel Power Corp.
Pete Filios	Flame Air	Gerry deReus	Mechanical Maint.
A. C. Agboatwala	Safeway Stores	Ubo Mulder	Van Mulder S.M.
Bud Ferry	A. J. Bouey Co.	Gus Schjaerve	GM & TR Simonson
Clyde Wilson-Reid	Clyde Equipment Co.	Dennis H. Steven	Powers Reg Co. Inc.
Jim Van Buskick	A. O. Smith Corp.	Karam H. Sawwan	Bentley Engineers
Dick H. Fujioka	D. H. Fujioka Cons. Engr.	Ray L. Herman	
Richard Schennert	Bechtel Inc.	Graham Brotherson	PG&E
Jim Nimechek		Wm. C. Bulkeley	Aladdin Heating Corp.

GUESTS

F. Crawford	HRB-Sincor Inc.	Eric Holm	Fluor Utah, Inc.
Michael Rubio	Yamas Co.	Ed Morton	Calma Co.
Warren Pollock	US Postal Service	Carol M. Mills	Bechtel Power Corp.
William Giussi	Yamas Co.	Dick Dundas	Bechtel Power Corp.
Chas. Lambert	Bechtel Power Corp.	John G. Hahn	Bechtel Power Corp.
Russ Brown	Bechtel Power Corp.	Rich Leao	Norman S. Wright & Co.
Harry Hoppe	A. R. Peterson & Sons	Milan R. Komadina	A. R. Peterson & Sons
Bill Schultz	Powers	Herb Gough	Johnson Controls
Karen O'Hara	Johnson Controls	Bill Lose	Robt. B. Liles, Inc.
Dick McKnight	American Warming & Vent.	Mike S. McClure	University Mechanical
Robert Fell	York	Apol Wolford	Materials Survey
Doug Maley	Tempco Equipment Co.	Bon Ribacchi	Mechanical Supply Inc.
Elliott Nichols	PG&E		



GOLDEN GATE CHAPTER



ASHRAE

VOLUME XIV -- NO. 5

FEBRUARY 1975

PROGRAM COMMITTEE CHAIRMAN - JACK PALMER

The Fifth regular meeting of the Golden Gate Chapter for the 1974-75 year will be held at the Engineer's Club in the Hong Kong Bank Building, 160 Sansome Street, San Francisco, on Thursday night- February 6, 1975. The Social Hour will begin at 5:30 with dinner at 6:45 PM.

Subject: "COMPACT CITY" A SLIDE PRESENTATION PORTRAYING A NEW CITY PROPOSAL FOR MORE EFFECTIVE USE OF THE VERTICAL DIMENSION AND THE TIME DIMENSION THAN PRESENT CITIES.

Speaker: Julian D. Munoz, Group Four Architects.

Please note that the February meeting is "Ladies Night" and all members wives are cordially invited.

FEBRUARY WORKSHOP

Inasmuch as the February ASHRAE meeting is "Ladies Night" there will not be a workshop.

Bob Phillips, Chairman

HONOR ROLL

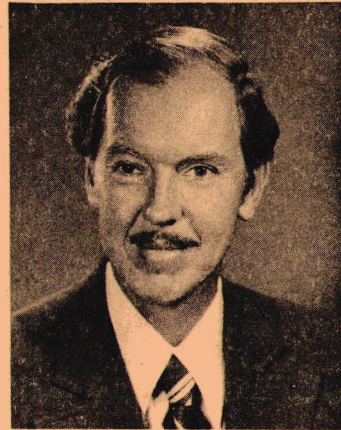
INDUSTRIAL POWER INCORPORATED

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President's Corner
RICHARD A. CHARLES



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1974-75

Richard A. Charles President
 Jack Palmer Vice President
 Carl Jordan Secretary
 Gene Valerio Treasurer

BOARD OF GOVERNORS

Lewis Pollock
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5 June 1975	23 May 1975

KNOW A PROSPECTIVE NEW MEMBER?

Contact Membership Chairman:

Dart Rinefort - Carrier

(415) 658-6717

MAIL OR PHONE NEWS TO:

Jim Holden, Editor
 FOG DISPENSER
 161 Starlite Street
 So. San Francisco, Ca 94080
 Phone 871.8292

Due to reasons beyond my control, I am writing the column this month from the beach at Waikiki, Hawaii, that is. As President of ASHRAE, Golden Gate Chapter, I felt it my duty to come over here to check out the proposed CRC meeting accommodations at the Hilton Hawaiian Village. Now, if you believe that, you'd believe anything. The truth is that I was forced to come over here on business. But while I was here, I did talk to Mrs. Dearing of the Island Holiday Conventions to get more detailed information on the coming CRC meeting, May 18-23, 1975 in Honolulu. First of all, in referring to the latest announcement which was printed on green paper and sent out to all ASHRAE members in Region X, the air fare portion of the basic conference package A or conference package B announced \$256.98 and that is based on 40 people travelling together to and from the same destination. If we are not able to put together 40 people packages, then you would subtract \$256.98 from either plan A or B to determine the net price for the room, which would include the Lei greeting, the nights' lodging as prescribed, the round trip transfers to and from the airport, baggage handling, and all applicable taxes and security charges. As long as you make your reservations through Island Holiday Conventions by March 15, 1975, they will handle all of the other details for you. The only thing that you would be responsible for would be in making reservations for your actual air travel. The basic conference packages are based on what they call deluxe rooms but are superior in nature. I will be looking at the different accommodations while I am here, and when I return, I will have more specific information on the types of rooms, and whether or not it is recommended to pay the \$22.00 extra for the Rainbow Tower rooms. The policy of the Hilton Hotel is that up to 2 children may occupy the same room as their parents with no additional cost regardless of their age. The air fare is 1/2 of the adult fare up to 12 years and above that is full price. Any activities that are scheduled in the actual CRC meeting, such as the Okole Maluna, which is an all day and part of the night event involving swimming, eating, etc., would be charged for at the full rate for children as adults.

If you are planning now to attend the CRC meeting, remember that your reservations must be in by March 15, 1975 to be confirmed. If I can assist you in any way, please feel free to call me at 434-2720.

I would like to point out that the San Francisco Bay Area Engineering Council is having their National Engineers' Week from February 16-22, and the theme this year is "Engineering, Exploring New Energy Frontiers." As you may or may not be aware, the scholarship program that the Engineers Council sponsors involves over 150 private and parochial schools in the Bay Area, and awards of over \$7,000.00 will be made to ten outstanding high school seniors who plan on pursuing an engineering or scientific education in an accredited college or university. In addition to this, they have career guidance programs, public relations programs, etc., to continue to promote the engineering societies in the Bay Area, throughout the year. There will be a main banquet during the week, and as soon as I receive more information on it, I will let you know.

President's Corner continued

Last fall when the Cal Poly Air Conditioning Club visited us, I was astounded to find out that the air conditioning and refrigeration option in the engineering and technology department at California Polytechnic State University is struggling to convince the administration that they are a valid teaching junction. It seems as though most administrative people in the university view air conditioning as that of installing a window unit, or at the most, buying a car with it already installed. Therefore, no need to train people in this area. I would like to encourage fellow engineers, and others in sales and contracting, who are familiar with the excellent performance of graduates of the Cal Poly Refrigeration and Air Conditioning curriculum, to express their opinion to appropriate Cal Poly staff. I am listing the names of different people at the university who would be very much interested in hearing from us as to our view points on how well a job this department has done. 1) President-Robert Kennedy; 2) Dean of Engineering-Robert Valpey; 3) Department Head/Engineering Technology-Jim McGrath; 4) Chairman of Air Conditioning/Refrigeration Option-William J. Phaklides. Let me encourage you to write these people as soon as possible, and when you do so, send a copy of your letter to me so that I may get an overview as to how much response we are actually getting on this effort.

Remember to make plans now for the seminar which is coming up on April 1, 1975, and the May social which will be a tour of the Mondavi Winery on May 3, 1975, and the CRC meeting in Hawaii on May 18-25, 1975.

TREASURER'S REPORT FOR FEBRUARY

<u>Month Ending</u>	<u>Income</u>	<u>Expenses</u>	<u>Members Equity</u>
11-30-74	\$478.35	\$405.85	\$3289.84
12-31-74	60.55	311.11	3039.28

Submitted by most respectful Treasurer Gene Valerio

CHAPTER MEMBERS PRESENT AT THE JANUARY MEETING

<u>Name</u>	<u>Affiliation</u>	<u>Name</u>	<u>Affiliation</u>
Reid Chappell	Stanford Med. Ctr	Gene Valerio	Air Filter Control
Chuck Kopf	Belelove Co.	Lewis Pollock	Trane
Bud Ferry	A. J. Bouey Co.	Dick Charles	Charles & Braun
Ed Colling	Retired	Jack Palmer	California Hydronics
Pat Patterson	Pameco Aire	Carl Jordan	Skidmore Owings Merrill
Kenneth Hill	Kaiser Engineers	Morris Konnoff	Mechanical Consulting
Sam Yamoto	Beamer Wilkenson	Pete Tidmarsh	York
Tom White	American Blower	Geo Aronovsky	Aronovsky & Assoc.
Karl Baldwin	Bechtel	Jim Holden	Valley Sheet Metal
Richard Wells	Montgomery & Roberts	Roy Anderson	City College, SF
Dick Frenzel	E. B. Ward Co.	Don Bryant	UC Extension
Michael Rich	Gaffigan Co.	Pete Filios	Flameair
M. D. McElya	Fibreglass	Roy Gifford	Charles & Braun
Leo Pumphrey	University Mechanical	Richard Stone	Metalbestos
Gino Colacchia	" "	Larry Navarro	Northstate
Bill Hancock	P G & E	Dave Attard	California Hydronics
Arel Berrier	Cal NYO	Dieter Meissner	Cal Air
Dart Rinefort	Carrier Corp.	Calvin Laws	Skidmore Owings Merrill
Dick Friedman	Engineered Air	Dick Porter	Yamas
Dave Rifkin	Tempco	Gus Schjaerve	Simonson & Simonson
Roy Skover	Lennox	Peter Hudson	Bechtel
Tom Conroy	Clyde Equipment	Bob Swezey	Air Filter Control
Jon Bernard	Weather Systems	Tom Gilbertson	L & H Airco
Karen O'Hara	Johnson Controls	Steve Sprague	Charles & Braun
		Richard Gee	Bechtel

WIVES OF MEMBERS

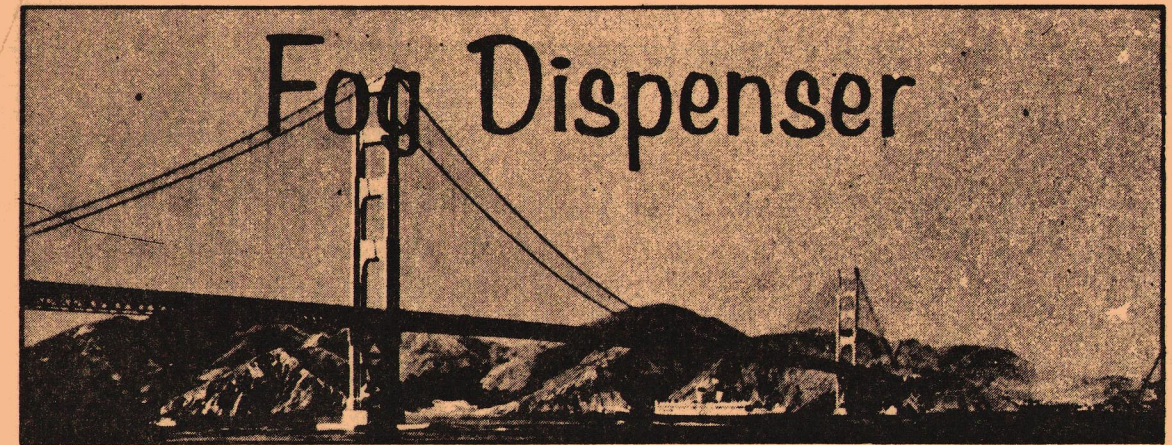
Peg Collins	Bobbie Patterson	Adeline Baldwin	Margaret B. Rich
Barbara Huddleston	Alice Hancock	Ellen Berrier	Dotty Rinefort
Pat Valerio	Van Charles	Shirley Pollock	Ricky Holden
Lois G. Anderson	Alice Bryant	Amanda Filios	Virginia Gifford
Isabelle Stone	Sue Swezey	Juanita Gilbertson	Sally Sprague

STUDENT ENGINEERING AWARD WINNERS

John Ong	Namsun Wang	Laura Tom
----------	-------------	-----------

GUESTS

J. K. Giles	Fibreglass
Vinson Moran	University Mechanical
Wayne Gehrke	Group 4 Architects
Robin Chiang	" " "
Oliver Yu	Electric Power Research Institute
Julian Munoz	Group 4 Architects
Mike Devine	Stanford Medical
Henry Huddleston	Colombia Mechanical
Steve Sabol	Weather Systems
Peter Hudson	Bechtel



GOLDEN GATE CHAPTER



ASHRAE

VOLUME XIV -- NO. 5

MARCH 1975

PROGRAM COMMITTEE CHAIRMAN - JACK PALMER

THE SIXTH MEETING OF THE GOLDEN GATE CHAPTER WILL BE A MEMBER-SON/DAUGHTER FIELD TRIP TO TOUR THE MANUFACTURING FACILITIES OF PACIFIC PUMPING COMPANY. GROUPS OF EIGHT TO TEN WILL BE ESCORTED THROUGH THE PLANT BEGINNING AT 5:30 P.M., MARCH 6, 1975. PACIFIC PUMPING IS LOCATED AT 9201 SAN LEANDRO BLVD. IN OAKLAND. AFTER YOUR TOUR YOU MAY TRAVEL TO JAKE'S LION RESTAURANT AT 1045 MAC ARTHUR BLVD. IN SAN LEANDRO TO OUR PRIVATE BANQUET ROOM FOR THE SOCIAL HOUR. DINNER WILL BE SERVED AT 8:00 P.M. .

MARCH WORKSHOP

Due to March being a Member - Son/Daughter Field Trip there will not be a workshop

Bob Phillips, Chairman

TREASURERS REPORT

Month Ending	Income	Expenses	Members Equity
12/31/74	\$60.55	\$311.11	\$3,039.28
1/31/75	41.00	1,524.40	1,555.88

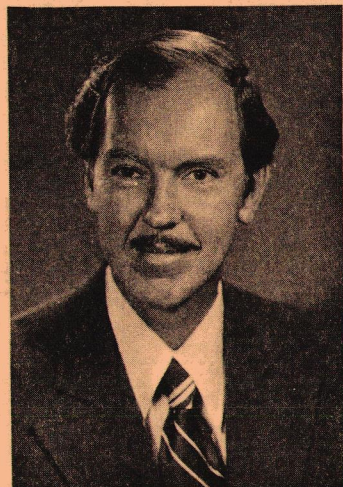
HONOR ROLL

920 Grayson Street
Berkeley, Ca 94710

CLYDE EQUIPMENT CO.

Telephone:
845-6130

President's Corner
RICHARD A. CHARLES



Published monthly by the Golden Gate Chapter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, c/o Grace Hackett & Assoc., Jack Tar Hotel, 1255 Post Street, San Francisco, California — 673-3850

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1974-75

Richard A. Charles President
Jack Palmer Vice President
Carl Jordan Secretary
Gene Valerio Treasurer

BOARD OF GOVERNORS

Lewis Pollock
Tom Gilbertson
Dick Glumac

COPY DEADLINE

In order to meet our publication dates, we have established the following as the last possible dates that copy for the Fog Dispenser can be in the editor's hands.

Meeting Date	Copy Deadline
6 Mar. 1975	21 Feb. 1975
3 Apr. 1975	21 Mar. 1975
3 May. 1975	18 Apr. 1975
5 June 1975	23 May 1975

KNOW A PROSPECTIVE NEW MEMBER?

Contact Membership Chairman:

Dart Rinefort - Carrier

(415) 658-6717

MAIL OR PHONE NEWS TO:

Jim Holden, Editor
FOG DISPENSER
161 Starlite Street
So. San Francisco, Ca 94080
Phone 871.8292

The Ninth Annual ASHRAE Golden Gate Chapter Seminar is about to begin. The subject this year will be "Electrical & Mechanical Requirements in Building Systems" and will begin on April 1, 1975 for six consecutive Tuesday evenings from 6:30 to 9:30 at the P.G. & E. Auditorium. The total cost this year will be \$30.00 per person. In reviewing the list of subjects, and the speakers that will be presenting them, it looks like we are going to have another great seminar. The first announcements will be mailed out within a few days with all of the subjects and the speakers who are going to present them.

The final plans for the Golden Gate Chapter Social have been completed. This year we will go by bus to the Mondavi Winery in Rutherford, CA, for a tour of the winery, wine tasting, and an excellent full course dinner, during which we will be serenaded by a mariachi band. We will then return to San Francisco by bus. This should prove to be a very enjoyable evening. We would like to encourage you to invite your friends who are not necessarily associated with ASHRAE to join us as it is open to all. We will be sending out the announcements and tickets in a short time, and all tickets must be purchased in advance, in order that we can determine the number of busses. There is a possibility, with the busses leaving San Francisco, that we will be able to stop at a designated spot in Marin County and pick up those who live in that area. More details later.

March 15, 1975 will be the deadline for getting your reservations in for the CRC meeting at the Hilton Hawaiian Village in Hawaii. It is important that the travel agency doing the final planning know the number of people that will be involved, and what events they are planning to attend. You will also note that if you make your reservations now, the price for the different activities at the CRC meeting is somewhat less than if you pay for them later at the meeting. The feedback that I am getting from other chapters is that there is not enough people to put together a 40 group package. Therefore, we will probably all be making our separate reservations, and deducting the \$256.00 from the total package cost as indicated in the green mailing sheet. If you have any questions on any of these details, please call me at 434-2720.

A Construction Specifications Institute products fair will be held Wednesday, March 19, 1975, at the Show Place, at 2 Kansas Street, San Francisco, between the hours of 3:30 and 9:30. There will be a number of manufacturers' products on display that deal with the construction industry, and including products in our field. I have some flyers on the event. If you are interested please call me and I will drop one in the mail to you.

See you at the Pacific Pumping Company on March 6, 1975.

MINUTES

The meeting was called to order at 7:55 p.m. at the Engineers Club.

Motion, second and pass: Approved minutes of 1/9/75 meeting.

Jordan reported that the Nominating Committee has presented the following names for our forthcoming elections:

President	Jack Palmer
Vice President	Carl Jordan
Secretary	Gene Valerio
Treasurer	Richard Glumac
Past President	Richard Charles
Board Member	James Holden

The other existing board member, Tom Gilbertson, still has one year remaining of his two year term and is therefore not subject to reelection at this time. Additional nominations may be made from the floor at our next general meeting.

Jordan reported for Energy Conservation Committee: Our Chapter's committee is now reviewing the second draft of the proposed ASHRAE Standard 90P. The Committee's next meeting is 2/14/75.

President Charles reported on Engineers Week Banquet to be held on 2/20/75 at Bimbo's 365 Club. Roger W. Sant of the F.E.A. will be the speaker on Energy Conservation and environment.

Tom Gilbertson reported on the technical seminar to commence 4/1/75.

President Charles announced a C.S.I. Products Fair on 3/19/75 in San Francisco.

President Charles announced our Chapters' social on 5/3/75 at the Mondavi Winery in Rutherford. We will travel by bus and tickets must be obtained in advance. The cost will be \$30.00-\$40.00 per couple.

President Charles again reminded us regarding the forthcoming C.R.C. Meeting in May in Honolulu.

President Charles advised that the new Chapter rosters have been mailed.

After a short break and a raffle, Mr. Julian Munoz of Group Four Architects presented slides and spoke on the "Compact City" as follows:

a. The problem was portrayed as follows:

- 1) High rise buildings constitute inefficient use of floor area; part of the justification for high rise buildings is merely company public relations for image.
- 2) Office buildings are unused 75% of the time.
- 3) High rise buildings may be satisfactory for occupants but are a detriment to pedestrians.
- 4) Cities are noisy, polluted and congested.
- 5) Automobiles require space for roads and parking.
- 6) Automobiles or mass transit are required for urban living; the automobile has become a part of our lives.

b. The "Compact City" solution to the foregoing problems:

- 1) A self-contained, totally enclosed city, 9,000 feet in diameter, 240 feet high, 8 stories housing 250,000 people.
- 2) Transportation within the city would be by electric cars or bicycles; and elevators, trams, etc.
- 3) The city would house all residential, educational, institutional and light industrial functions and would exclude heavy industrial functions. Included would be promenades, parks, plazas, etc.
- 4) Homes would be designed differently because of little regard for the weather or environment (within the enclosed city). Residences can be single or multi family dwellings.
- 5) Core of the city would be covered by a translucent dome.
- 6) City lights would be on 24 hours a day; people could live varied schedules. Not all people would have to have their "daytime" at the same time, thus utilizing the city more efficiently and continuously.
- 7) Problems identified include acoustical privacy and fire hazard.
- 8) The periphery of the city has intimate contact with the countryside.
- 9) Energy would be provided by fusion or solar plants
- 10) The average lot size would be 2,400 feet.
- 11) Jack Palmer announced that the next meeting would be on March 6, 1975 and would be a father-child event.

MINUTES

The meeting was preceded by a very well organized and extremely interesting tour of the manufacturing and testing facilities of the Pacific Pumping Company in Oakland. Subsequently, the meeting was called to order at 9:10 p.m. at Jake's Lion Restaurant.

Motion, second and pass: Approved minutes of 2/13/75 meeting.

President Charles reported on the forthcoming C.R.C. Meeting and reminded us regarding 3/15/75 reservations deadline.

President Charles announced forthcoming Technical Development Seminar to start 4/1/75 and corrected published Seminar title to read "Often Overlooked HVAC Essentials".

President Charles announced the 5/3/75 Chapter social to be held at Mondavi Winery.

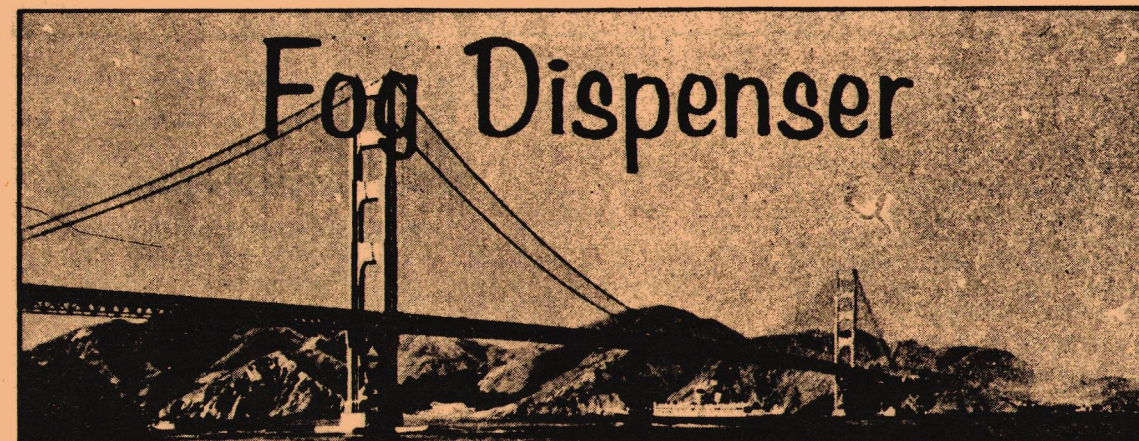
Bernie Beckius, Chairman of our Cal Poly Workshop Committee, reported on the general activities of the Committee. Walter Holtz and Rod Keif, faculty members at Cal Poly, were present. Mr. Holtz reported in detail regarding the use of the Workshop funds at the school.

President Charles again reported the names presented by the Nominating Committee for the forthcoming election of officers (See 2/13/75 Minutes) and called for nominations from the floor. There were no nominations from the floor. Motion, second and pass: that the nominations be closed.

ASHRAE GOLF DAY WILL BE FRIDAY AFTERNOON, MAY 30, 1975, WITH A WONDERFULL DINNER TO FOLLOW. CIRCLE THE DATE. FORMS AND DETAILS WILL BE IN NEXT MONTH'S FOG DISPENSER.

ASHRAE TENNIS DATE - WE WOULD LIKE TO HAVE A TENNIS TOURNEMENT NEAR THE GOLF TOURNEMENT AND THEN ALL HAVE DINNER TOGETHER.

IF ANYONE HAS AN IDEA OF WHERE WE COULD RESERVE TENNIS COURTS REASONABLY CLOSE TO PEACOCK GAP, PLEASE CONTACT GENE BETTENCOURT AT 658-6717.



GOLDEN GATE CHAPTER



ASHRAE

VOLUME XIV -- NO. 6

April 1975

PROGRAM COMMITTEE CHAIRMAN - JACK PALMER

The seventh meeting of the Golden Gate Chapter for the 1974-75 year will be held at the Engineers' Club in the Hong Kong Bank Building, 160 Sansome Street, San Francisco, on Thursday night - April 3, 1975. The Social Hour will begin at 5:30 with Dinner at 6:45 p.m.

PROGRAM - APRIL 3, 1975

- Speakers:
1. Leonard W. Lewis of Leonard W. Lewis Mechanical Engineers and John May of Kaiser Permanente will speak on: "Why Refrigerant Cooling for Industrial Buildings?"
 2. Leo Dwyer of Ralston & Dwyer will speak on: "Can There Be Any Reason for Those Outrageous Clauses in Specifications"

APRIL WORKSHOP

Bob Phillips, Chairman
April 3, 1975

6:00-6:45 PM
Upstairs

EXPLICIT SCENES OF BREEZY HAPPENINGS TO BE SHOWN

Golden Gate Chapter member Bud Ferry will present slides and give us a running commentary entitled "Inside AMCA", which tells about fans, their testing and ratings. This slide presentation will tell us who AMCA is, what it does, how it operates, its programs and its publications.

Everybody talks about AMCA but here's a chance to get the explicit facts.

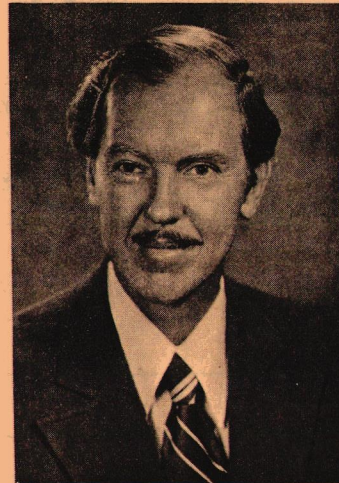
HONOR ROLL

VANN ENGINEERING CORP

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Telephone
284 - 7171

President's Corner
RICHARD A. CHARLES



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COPY DEADLINE

In order to meet our publication dates, we have established the following as the last possible dates that copy for the Fog Dispenser can be in the editor's hands.

Meeting Date Copy Deadline

3 Apr. 1975 21 Mar. 1975
 3 May. 1975 18 Apr. 1975
 5 June 1975 23 May 1975

KNOW A PROSPECTIVE NEW MEMBER?

Contact Membership Chairman:

Dart Rinefort - Carrier

(415) 658-6717

MAIL OR PHONE NEWS TO:

Jim Holden, Editor
 FOG DISPENSER
 161 Starlite Street
 So. San Francisco, Ca 94080
 Phone 871.8292

President's Corner
 FOG DISPENSER-April

In the December issue of the FOG DISPENSER, I stated that it was my understanding that the president and other administrative staff of California Polytechnic State University do not really feel that the Air Conditioning Department is a very valid part of the university, that they, like other universities feel that air conditioning consists of purchasing a window unit, and installing it in a window or wall. I suggested that those of us in the industry who have found the graduates from Cal-Poly Air Conditioning and Refrigeration Engineering Technology Department to be well trained and a real asset to our industry, to write expressing this feeling.

Mr. J.H. Blake, manager of the industrial division of Hussmann Refrigeration wrote such a letter to Mr. Jim McGrath of the Engineering and Technology Department of Cal-Poly. He expressed the satisfaction that he has had with the graduates from Cal-Poly over graduates from other universities, and encouraged them to continue the Air Conditioning and Refrigeration Engineering Program. It appears that a misunderstanding has been created by Mr. Blake's letter, and my column. On February 18, 1975, I received a letter from Mr. Robert G. Valpey, who reassured me that the Air Conditioning and Refrigeration option in the Engineering and Technology Department, School of Engineering was not struggling to convince the administration that they are a valid teaching function. He stated that the president, the head of the department, and himself enthusiastically support the Air Conditioning option of the Engineering Technology program, and the Air Conditioning and Refrigeration concentration in the Environmental Engineering program.

In the past three years, they have graduated 105 students from these combined programs and at the present time, they have 69 students in the AC & R option of E.T., and 50 students in AC & R concentration of Environmental Engineering. He went on to state that the laboratory that is currently used for these programs is an excellent one with up-to-date equipment, but is very crowded and suffers from space constraints, and this same constraint is a problem with the whole university.

President's Corner Page 2

For some time now, the School of Engineering Technology has been working on a program to readjust the space within their laboratory facilities to make the entire laboratory program operate more efficiently. He also stated that never in our consideration have they ever thought of reducing the present AC & R laboratory space. Their only thought has been toward the possibility of expanding the space, but the entire university suffers from space problems, and the state's capital outlay program has been reduced in the past few years. He noted that the total university square footage is only 75% of that which is authorized and earned by the number of student credit hours that they teach at the university. From his letter, I must conclude that I misunderstood the statement concerning the feelings toward the Air Conditioning option by the President and the administrative staff.

I only hope that this communication, eventhough misunderstood, may have expressed our concern of the importance we feel of the graduates from this department of Cal-Poly, and trust that in the future, they will send our way even more of the excellent graduates which they have turned out in the past.

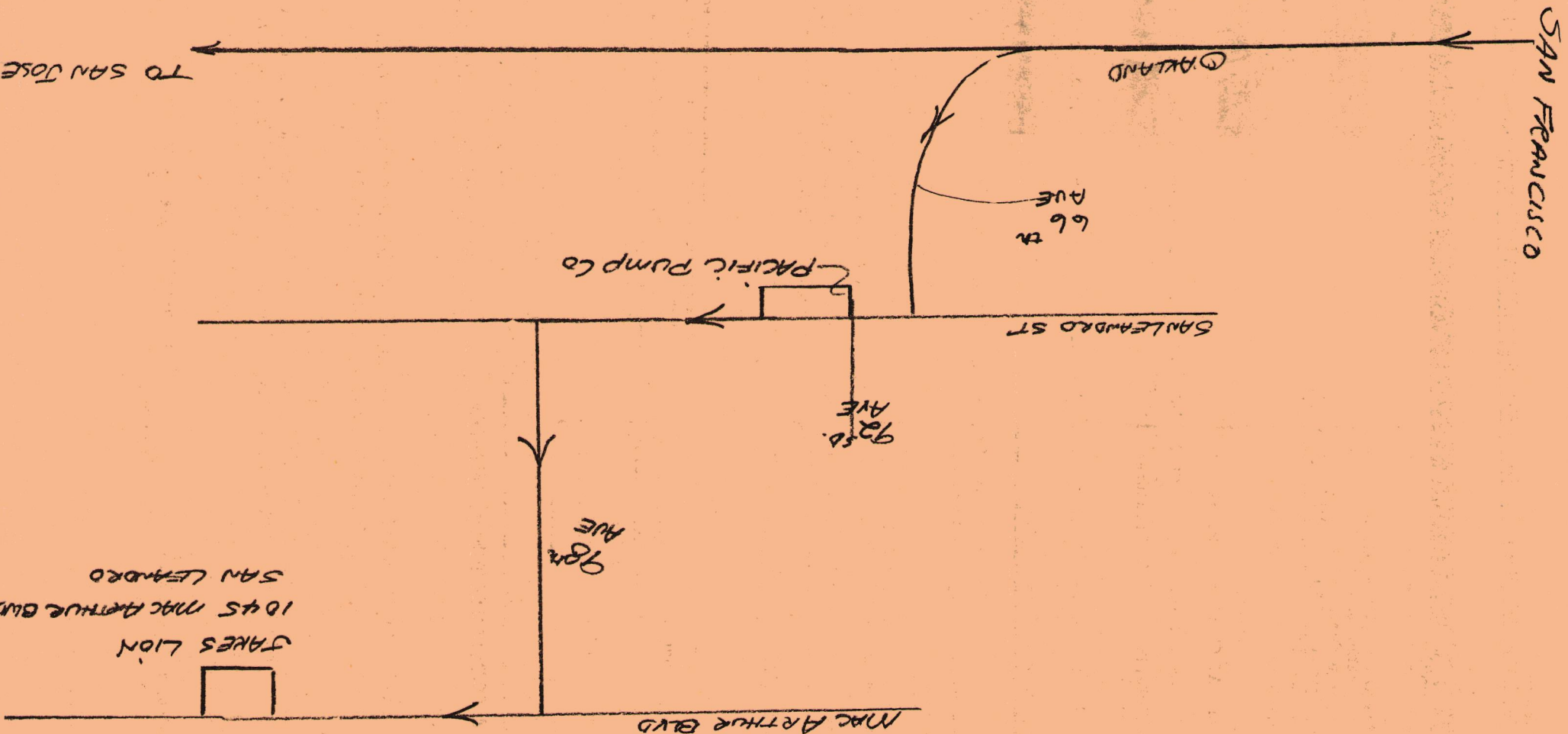
The Ninth Annual ASHRAE Technical Development Seminar, titled "Often Overlooked HVAC Essentials, Electrical-Mechanical-Design, Start-up, Maintenance, and Operation", will begin on April 1, 1975 and run for 6 consecutive Tuesday nights. The final announcement, which is printed in blue this year, has been mailed out. You will note that the cost is a \$30.00 contribution, and due to the limited seating of the P.G. & E. Auditorium, it will be first come, first served. Get your checks and applications in as soon as possible.

Due to the new postal regulations, if you fail to put a stamp on your dinner meeting reservation card, it will be returned to us two weeks after the meeting with postage due of 18¢. We will then collect triple damages from the person who sent it. Our first winner is Jim Nemechek. In the future, please put the 8¢ stamp in the upper right hand corner of the card.

TREASURER'S REPORT FOR MARCH

<u>Month Ending</u>	<u>Income</u>	<u>Expenses</u>	<u>Member's Equity</u>
2-28-75	\$438.50	\$164.39	\$1,829.99
1-31-75	41.00	1,524.40	1,555.88

LOCATION OF MARCH 6, 1975 ASHRAE FIELD TRIP



FATHER / SON - DAUGHTER NIGHT

SEND IN RESERVATION CARD IF YOU ARE GOING TO
JOIN US FOR DINNER

PLEASE NOTE: NUMBER OF ADULTS & CHILDREN



ASHRAE SAN JOSE #101

SOUTH BAY MAINTENANCE SEMINAR

4661 Lafayette
Santa Clara, Ca. 95050
c/o L. H. Air Co.

Gentlemen:

The South Bay Maintenance Seminar will be held at the Le Baron Hotel in San Jose, California, on the evenings of April 15th and 16th, 1975 from 7:30 P.M. to 10:00 nightly.

A brief description of our proposed program is outlined below.

Tuesday, April 15th

7:00 P.M.

Conference Opens

Talk by James Reese on Factory Air Conditioning and Energy-Saving Designs (Tempmaster).

8:15 15-minute break.

8:30 A talk on pump maintenance and procedures of preventive maintenance by Milton McLeod of California Hydronics Corp., Northern California, factory representative for Bell-Gossett Pumps and other hydronic equipment.

10:00 Adjourn for the evening.

Wednesday, April 16th

Talk on Boiler and Machinery Problems and Maintenance Suggestions by Hartford Steam Boilers Insurance.

8:15 15-minute break.

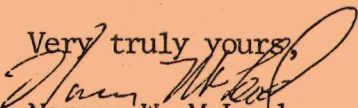
8:30 A talk on ASHRAE Energy Standards 90 P for energy saving and what maintenance problems can be expected by Richard Lee, Professional Mechanical Engineer, Monterey, Ca.

10:00 Conference closes.

There will be a question-and-answer period after each talk. Literature and handouts have been requested from each speaker, if possible.

There will be an admission of \$25.00 for both days. If your paid reservation is made before March 31, 1975, the cost will be \$20.00 for both nights. Send your payment to: 4661 Lafayette Street, Santa Clara, Ca. 95050, c/o L. H. Air Co.

Very truly yours,


Norman W. McLeod

Co Chairman

CHAPTER MAY NOT ACT FOR THE SOCIETY

MINUTES

The meeting was called to order at 8:15 p.m. (at the Golden Gate Yacht Club).

Motion, second and pass: Approved minutes of 12/5/74 meeting as corrected in writing by Richard Gee, one of the speakers. The corrected portion of the 12/5/74 minutes that dealing with the main presentation, is incorporated at the end of these minutes.

President Charles reported on the semiannual meeting in Atlantic City on 1/26/75 through 1/30/75.

President Charles reported that this years social will be wine tasting and a dinner at the Mondavi Winery. We will travel together by bus; tickets must be purchased ahead of time. The date of the affair is 5/3/75.

President Charles reported on the C.R.C. Meeting upcoming in Hawaii on 5/18/75 through 5/23/75.

President Charles reported that the roster is complete and distribution is momentary.

Tom Gilbertson, Chairman of the Seminary Committee, advised that the Seminar will commence on 4/1/75 for six consecutive meetings in the PG & E auditorium.

President Charles advised that the Nominating Committee is comprised of Bob Voelz, Andy Feiner, Dick Friedman, Richard Gee and Dick Charles.

Don Bryant reported that Dart Rinefort will commence teaching a/c design classes on Saturday morning at City College of S.F.

After a short break , the following presentation was made by Richard J. McNight, Chairman of the AMCA Publications Committee:

- a. AMCA was formed in 1954. Since that time there have been a number of not very well defined methods of determining louver and damper free area leakage, etc.
- b. Mr. McNight advocated specifying that louvers and dampers be certified by and carry the seal of AMCA Standard 500.
- c. For dampers, this Standard defines the method of determining a free area and air leakage-the latter as a function of air quantities, pressure differences and applied torque.
- d. A forthcoming revision of AMCA Standard 500 will stipulate a water leakage test based on a rain fall rate of 4 inches per hour for a 15 minute duration; 4 gpm per foot of louver width.
- e. Blade types may be categorized as straight type, baffled type or drainable type. The latter prevents water from cascading down from the upper blades and permits much higher air velocities without moisture carry-over.

Jack Palmer announced that the next meeting would be on 2/6/75 at the Engineers Club. The subject will be "Compact City". It will be ladies night.

The corrected minutes of the main presentation at the 12/5/74 meeting are as follows:

Richard Gee and Keith Burrowes, both of Bechtel Power Corporation, made a presentation on H.V.A.C. considerations in nuclear power plants. Some of their points were as follows:

- a. Thirty-three percent of the energy consumed in the United States is attributable to commercial and residential buildings; and fifty percent of that energy is consumed by H.V.A.C. systems.
- b. The first nuclear power plant was constructed in 1951; there are now approximately 50 such plants; there are an additional 60 under construction; by the year 2000 there should be approximately 1,000 nuclear power plants in the United States.
- c. Commonly used nuclear power plants fall in the following categories:
 1. Pressurized water reactors (PWR).
 2. Boiling water reactors (BWR).
 3. High temperature gas-cooled reactors.

- d. The Steam generated by BWR's is radioactive. That in PWR's is not.
- e. General Electric is the only domestic manufacturer of boiling water reactors.
- f. Babcock-Wilcox, Combustion Engineering and Westinghouse are the domestic manufacturers of pressurized water reactors.
- g. H.V.A.C. criteria include the following:
 - 1. Heat removal.
 - 2. Satisfactory operational environment for equipment.
 - 3. Control of airborne contaminants.
 - 4. Habitability for operational personnel.
 - 5. Protection of the public and the environment from accidents.
- h. A typical 1,200 megawatt pressurized water reactor has a heat emission of 33,700 MBH.
- i. AEC develops safety standards; ASME and ANSI have been interpreting some of these standards.
- J. All safety-related H.V.A.C. equipment is duplicated by redundant 100% stand-by equipment. The two pieces of equipment are separated by barriers and other means to prevent missiles, fire and water damage.
- k. Inside a PWR containment, a borated sodium hydroxide spray would chemically control fission materials during an accident.
- l. Much of the equipment is water-cooled; the fans are direct drive.
- m. If the carbon exhaust filters overheat as a result of entrapped radioactive materials, a fire may result. Deluge fire protection systems are employed.
- n. Cooling and ventilation are generally accomplished with air handling units and chilled water coils.
- o. Since steam heat is not available from the nuclear plant until construction is completed, heating during the construction is accomplished with hot water boilers.

Respectfully submitted,

Carl H. Jordan, Secretary

CHAPTER MEMBERS PRESENT AT APRIL MEETING

R. H. Henman	Consultant	Dick Glumac	Glumac & Webster
Pat Patterson	Pameco Aire	Carl Jordan	Skidmore Owings Merrill
Jim Holden	Valley Sheet Metal	Jack A. Palmer	California Hydronics
Tim Breese	J. L. Breese	Leo Dwyer	Ralston & Dwyer
Bob Roach	Yanas	Lewis Pollock	Trane
Ted Georgiou	Kopa Engineering	Dick Charles	Charles & Braun
Dan Vandament	Consultant	Leonard Lewis	Leonard Lewis
Tom Namberumal	Kasin Guttman	John May	Kaiser Permanente
Raj Jandu	Bentley Engineers	Gene Valerio	Air Filter/Control
Bob Denney	Acco	Charlie Nadig	Trane
Pete Filios	Flame Aire	Roy Gifford	Vann Engineering
Charles Hardeman	C. S. Hardeman Inc.	Siggi Munding	George Greene
Mike Grimes	Norman S. Wright	Vinson Moran	University Mechanical
Robert Volz	Consultant	Leo Pumphry	University Mechanical
Gus Gendler	G. L. Gendler & Assoc.	Gino Colacchia	University Mechanical, UC
Jack Kniveton	Norman S. Wright	Don Bryant	Columbia Mechanical
Duane Hanson	Gaynor Engineers	Hank Huddleston	Owens Corning Fiberglass
Bob Swezey	Air Filter/Control	Don Bradshaw	Douglass Insulation
Hunter McLaughlin	Nuclear Cooling Inc.	Tom Douglass	A & B Metal
D. H. Fujioica	Consultant	Jim Taylor	American Air Filters
H. W. Lunsmann	Leonard Lewis	Jim Nimecheck	McLaughlin Associates
Bill Schultz	Powers Regulator	Chuck McLaughlin	Skidmore Owings Merrill
Gerry DeReus	Mechanical Maintenance & Service	Hendrik J. Mouw	Clyde Equipment
Ubo Mulder	Van-Mulder Sheet Metal Inc.	Tom Conroy	Kasin Guttman
Dave Attard	California Hydronics	Kaz Inouye	Wilsey & Ham
Ken Lloyd	Lillard Co.	Wanda Berry	Kasin Guttman
Russ Green	General Controls	K. Guttman	Owens Corning Fiberglass
Cal Laws	Skidmore Owings Merrill	S. Hoogs	U.S. Navy
		George Sharkey	



GOLDEN GATE CHAPTER  ASHRAE

VOLUME XIV -- NO. 7 MAY 1975

PROGRAM COMMITTEE CHAIRMAN - JACK PALMER

The eighth meeting of the Golden Gate Chapter for the 1974-75 year will be held at the Robert Mondavi Vineyards at or near St. Helena, California, on Saturday May 3, 1975.

We welcome the following new members and encourage their participation in our Chapter activities:

MEMBERSHIPS APPLIED FOR

Cameron Case	J. Clark Spooner	Jon Bernard
Kenneth Waypa	Donald Loeblein	Sirus Yashar
Lewis L. Loyko	Adolf Makaruk	Edward S. Wang
Larry C. Carr	Dieter Meissner	Michael McClure
John Sams, Jr.	W. H. Boganwright	Rodney Kaida
Jiri Dokladal	William B. Schultz	Gregory Braak
Luis Torregrossa	Michael Devine	Chuck McGriff

TRANSFER IN

Helmit Sommer	John Defibaugh	Donald R. Sauvageau
Harvo Yamamoto	Mohamed Dadci	John Kraft
Gaspar Racz		

STUDENTS

Ares Pappas	Bill T. Wong, Jr.	Mario Castro
Albert Jacob Grutze	Rodney Chervus	

If the membership committee can be of any assistance to these new members, please don't hesitate to give one of us a call.

Rich Wells	Chuck McLaughlin	Dart Rinefort,
Roy Anderson	Richard Frenzel	Chairman

ANNOUNCING:

SAN JOSE CHAPTER FIELD TRIP MEETING
STANFORD CENTRAL CHILLED WATER PLANT TOUR
Wednesday, May 7, 1975 6:00 PM Sharp

The San Jose Chapter invites Golden Gate Chapter Members to join in their field trip. Tom Simonson will speak, and dinner at the Stanford Faculty Club will follow the tour.

For reservations and a directional map, call Marlys or Lucy at Air Filter/Control, 871-6808, through Friday, May 2 only

NOTE: Reservations are limited-phone early. Your reservation must be firm; no-shows will be billed for dinner, since the Faculty Club has no flexibility.

TREASURER'S REPORT FOR APRIL			
Month Ending	Income	Expenses	Members Equity
3-31-75	\$559.09	\$771.05	\$1,618.03
2-28-75	438.50	164.39	1,829.99

Occasion: Annual social event of the Golden Gate Chapter of ASHRAE

Chairman: Mr. Jerry Kechter

Details: Our chartered bus (with wet bar) will be leaving from Union Square at 5:00 p.m. on Saturday May 3 and will stop at Holliday Inn, Terra Linda, in Marin County, at approximately 5:45 p.m. to pick up ASHRAE members and wives and/or friends on the way to Mondavi Vineyards. Following schedule will be observed:

Wine Tasting @	7:00 p.m.
Dinner @	8:00 p.m.
Bus leaves @	11.00 p.m.

In case you have forgotten contact Jerry Kechter at 467-3751 for reservations.

MAY WORKSHOP

Due to the social nature of our May meeting there will be no technical workshop. However any individuals desiring to work may contact Bob Phillips.

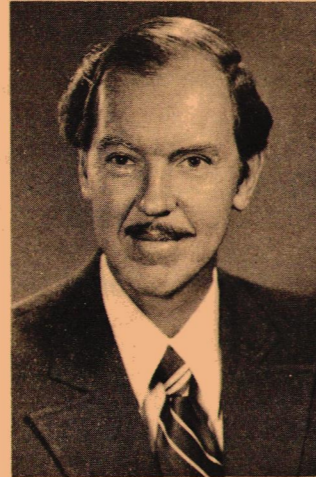
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Richmond, Ca. 94802

Telephone
234-9322

President's Corner
RICHARD A. CHARLES



Published monthly by the Golden Gate Chapter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, c/o Grace Hackett & Assoc., Jack Tar Hotel, 1255 Post Street, San Francisco, California — 673-3850

OFFICERS AND BOARD OF GOVERNORS

1974-75

Richard A. Charles President
 Jack Palmer Vice President
 Carl Jordan Secretary
 Gene Valerio Treasurer

BOARD OF GOVERNORS

Lewis Pollock
 Tom Gilbertson
 Dick Glumac

COPY DEADLINE

In order to meet our publication dates, we have established the following as the last possible dates that copy for the Fog Dispenser can be in the editor's hands.

Meeting Date	Copy Deadline
3 May 1975	18 Apr. 1975
5 June 1975	23 May 1975

KNOW A PROSPECTIVE NEW MEMBER?

Contact Membership Chairman:

Dart Rinefort - Carrier

(415) 658-6717

MAIL OR PHONE NEWS TO:

Jim Holden, Editor
 FOG DISPENSER
 161 Starlite Street
 So. San Francisco, Ca 94080
 Phone 871-8292

President's Corner

FOG DISPENSER-May, 1975

We have now completed four of the six sessions of the Ninth Annual Technical Development Seminar, which this year covered "Often Overlooked HV & AC Essentials, Electrical, Mechanical Designs, Start-up, Maintenance and Operation." Those who have attended, I am sure will agree that it has been well worth the effort they have put forth. As always, I know I have either learned something new each evening, or reinforced others. We still have two sessions left, April 29th and May 6th. To date, we have had 141 people enrolled, and I feel it has been a very successful seminar.

You will note by the insert, that the Bay Area Engineering Society Committee for Man Power Training is beginning a new consortium for 1975, to start on June 15, 1975. I would like to personally encourage you to look at this program as being a good method of training young minorities into our profession.

May is a busy month for the Golden Gate Chapter of ASHRAE. First, will be the May Social, which will be the wine tasting at Mondavi Winery on May 3, 1975. I hope to see a lot of you there. Second, will be the CRC meeting in Hawaii on May 18-25th. Third, will be the Golf and Tennis Day on May 30, 1975. We have a good variety of activities, and I hope that you will take advantage of as many as you can.

MINUTES

Meeting was called to order by President Charles at 8:00 p.m. Motion, second and pass. Approved minutes of 3/6/75 meeting.

President Charles and Jim Nemecek advocated individual and company contributions to the Cal Poly Workshop Fund.

Lew Pollock announced the 5/3/75 social to be held in the form of a dinner and wine testing affair at the Mondavi Winery. A bus will depart from Union Square at 5:00 p.m. Tickets are \$15.00 per person and must be procured in advance in order to assure proper coordination of transportation. Friends may be invited to this affair.

Charlie Hardiman, Chairman of our Election Ballot Counting Committee, reported the following vote outcome:

President	Jack Palmer	116
Vice President	Carl Jordan	112
Secretary	Gene Valerio	116
Treasurer	Dick Glumac	115
Board Member	Jim Holden	112
Past President	Dick Charles	110

No other legitimate votes were cast. The ballot was unanimous.

President Charles indicated that he has a copy of the new Energy Design Manual for H & I occupancies in the State of California. He will order a number of copies and make them available to members desiring them.

Bob Voelz reported on a state committee under the chairmanship of Tom Simonson resulting from Senate bill SB 144-legislation on energy conservation for occupancies other than H & I.

He reported that the state is apparently adopting a format similar to ASHRAE Standard 90-P, but it will be more restrictive; it will appear in Title 25.

The State has a "Fast Track" schedule toward final adoption of the regulations. The regulations are now in their fifth draft. The draft will be reviewed in a San Francisco seminar on 4/15/75; at a public hearing in Sacramento on 5/22/75. It will be presented to the State Commission on 6/10/75 and it is anticipated that it be adopted by 7/1/75. It is expected that these regulations may be effective for all building whose construction has not started prior to 1/1/76.

The requirements will include detailed requirements on energy consumption characteristics of a building; but will allow alternative approaches if they can be supported by comprehensive annual analyses of energy consumption.

President Charles introduced Mr. C. Douglas Barker of E.S.C.M.T. (Engineering Society's Committee for Manpower Training). Mr. Barker advised that E.S.C.M.T. was formed in 1968 and is now sponsored by a number of engineering and architectural societies. It is apparently a very successful program of education and training for minority persons in the fields of drafting, engineering and architecture.

Mr. Barker presented certificates of graduation from the program to Beverly Byrd, Alfred Randolph and Sal Ybarra. Corra Collins, another graduate, was not able to be present.

Bob Sweezy of the San Jose Chapter, invited us to tour the Stanford University Central Chiller Plant and have dinner with them on 5/7/75.

President Charles announced the low attendance at our first seminar session.

On 5/30/75 our Chapter will have a golf tournament at Peacock Gap and a Tennis Tournament at a location to be announced. After a short break and a raffle, the following presentations were made:

- Lew Lewis, consulting mechanical engineer, and John May of Kaiser talked on providing refrigerated air conditioning for industrial facilities. A report analyzing the advantages and disadvantages of such air conditioning was prepared and it indicated that the internal environment would be more comfortable, the systems would cost no more, and the duct work would use less space if the facilities were air conditioned rather than merely ventilated. They described a project so constructed and discussed its successes and some of its problems.
- Leo Dwyer of Ralston and Dwyer advocated fairness in preparing and interpreting drawings and specification requirements. Particularly included, were fairness in processing of submittals and change orders; the latter including the fairness by all parties involved. Mr. Dwyer advocated that clauses and specifications designed to protect one of the parties to a contract rather than being designed to accurately and fairly communicate the intent, should be avoided.

Respectfully submitted,

Carl H. Jordan

AN UNSOLICITED COMMENT

FROM

AN ANONYMOUS SOURCE

(Coincidentally filling the space normally reserved for "Members Present" at the previous meeting but missing this issue because Roy Scover was not present to take roll)

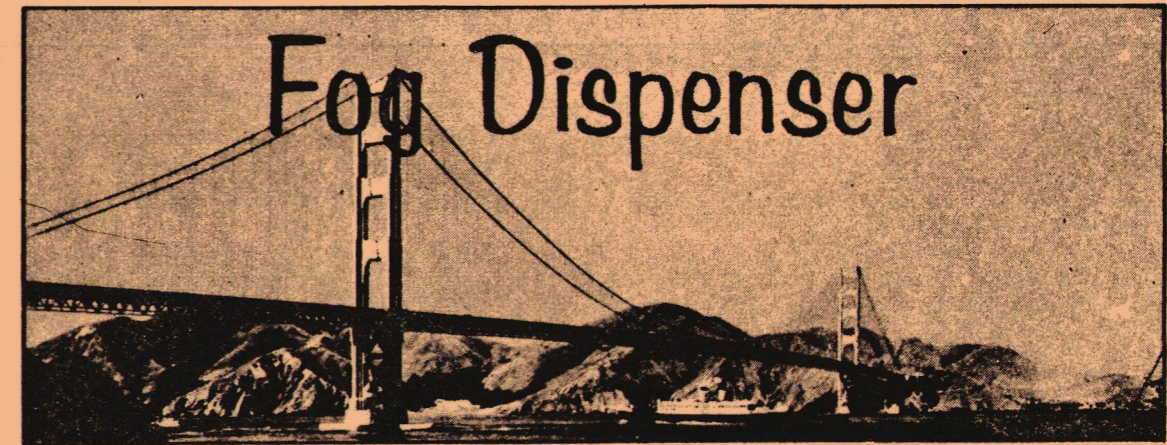
I am an enthusiastic member of the Golden Gate Chapter of ASHRAE. The people that I associate with in this group are mostly nice guys that would be great friends even if the professional aspect of the relationship were removed. Therefore through the services of ASHRAE I am able to mix business and pleasure very nicely. That to me is a big plus. Also we get a bonus thrown in every once in a while in the form of a pertinent technological address that increases my awareness of what is going on in this particular profession.

Now that my enthusiasm is aroused I become concerned over the future of our local chapter. The question arises, how to maintain a strong interest in this organization? Two different avenues come to mind. One is through creating a strong working force of interested new blood and the other is through presenting programs of such compelling force that members cannot afford to miss.

It seems that our membership committee has done a super job of signing up new members but have we been so successful in obtaining their attendance at our monthly meetings? Myself, it seems that if we really wanted to get the job done we should each draw up in our minds a list of members that have not been so active but which have a strong potential, given the encouragement and opportunity. In my own mind I can think very quickly of ten members which are very knowledgeable, obvious leaders and well accepted by their fellows but just a little bashful, or lazy, about getting started. I think we should concentrate on some of this new blood in order to survive. Committee work develops our leaders and it should be encouraged.

I think the other drawing card we need for strong membership participation is a series of meetings that will turn on everybody that hears about them. In the past, two types of speakers have vied for top popularity honors. One has been the type of speaker that has great personal popularity such as our last June speaker, Joe Alioto. The other is the controversial speaker which stirs people up to the point they would not miss. Typical of this type would be Al Goldberg of City Hall, the state fire marshall, the gentlemen who dream up the uniform mechanical code, and state senators or assemblymen who legislated the life safety act.

Thank you for reading this humble statement and I hope you will strive for a strong and active chapter.



GOLDEN GATE CHAPTER



ASHRAE

VOLUME XIV -- NO. 8

JUNE 1975

PROGRAM COMMITTEE CHAIRMAN - JACK PALMER

The ninth meeting of the Golden Gate Chapter for the 1974-75 year will be held at the Engineers' Club in the Hong Kong Bank Building, 160 Sansome Street, San Francisco, on Thursday night, June 5, 1975. The Social Hour will begin at 5:30 pm with dinner at 6:45 pm.

PROGRAM - JUNE 5, 1975

The June meeting will be past presidents night. Come see them all in person and all you past presidents please be present.

- Speakers:
1. Tom Campbell of Owens Corning Fibreglas whose topic will be, "California Title 25 Energy Conservation".
 2. Tom Simonson of G.M. & T. R. Simonson who will speak on ASHRAE Standard 90P.

With regulations changing almost daily, we are fortunate to get some expert advice on a couple of the more important ones.

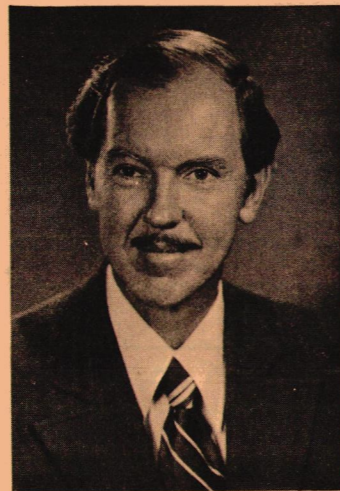
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President's Corner
RICHARD A. CHARLES



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5 June 1975 23 May 1975

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Contact Membership Chairman:

Dart Rinefort - Carrier

(415) 658-6717

MAIL OR PHONE NEWS TO:

Jim Holden, Editor
FOG DISPENSER
161 Starlite Street
So. San Francisco, Ca 94080
Phone 871.8292

THE PRESIDENT'S CORNER

It seems impossible that another year of activity of the Golden Gate Chapter of ASHRAE is about to conclude with our next meeting on June 5, 1975. The adage as we get older time flies has certainly proved true with me during this last year of presidency. In fact, when I look back to six years ago when I first began to serve on the board, even that time seems only a short while ago. The tenure was certainly rewarding. Certainly this past year has been, in my opinion a great year for the Golden Gate Chapter. Namely because of the people who have chaired committees and worked on committees, and I want to say to one and all, a great thanks and as I review the items of the past year's activities you will see that they certainly should be congratulated.

We began April 1, 1974 with a total of 576 national members, and 477 chapter members. As of April 1, 1975 we had 554 national members and 482 chapter members. This includes regular, students, life and fellow members. Nationally we had a decrease of 22, locally we had an increase of 5 members. Really there should have been 17 since the 12 minus was in the student category. We want to thank Dart Rinefort again this year for taking the job of membership chairman, and say he has truly done a great job especially with the large increase in dues, and the fact that nationally we have gone down in our overall membership. We want to thank Jack Palmer as the program chairman. At our meetings during the year we had an average attendance of 103 in our meetings with a high of 130 in our November Meeting when we had Mr. McKee of Pacific Fruit Express make his presentation on Refrigerated Cars.

You will note that our dues went down from ten dollars to nine dollars, and I hope that this was a token help realizing that national dues had increased approximately fifteen dollars.

The scholarship fund activity during the year totalled \$2400 which was donated to Cal-Poly at San Luis Obispo and San Francisco City College, to assist students (in the nine Bay Area Counties) who are involved in environmental engineering departments.

We donated \$2210.00 to national research which was mainly derived from the seminar.

I want to thank Jim Holden for the fantastic job he did as editor of the Fog Dispenser. I think we met every deadline and each issue came out on time.

Bob Phillips did an excellent job at the pre-meeting workshop. These programs took place before our regular and lasted usually forty-five minutes. As for those of you who are not aware of this it is an excellent opportunity to pick up some information. The average attendance last year was 15 to 20, and this is certainly low in relationship to the type of activity and the material that is

President's Corner

Page Two

presented in this workshop.

Our ninth annual seminar titled "Often Overlooked HV & AC Essentials, Electrical, Mechanical Designs, Start-up, Maintenance and Operation," was certainly very timely and interesting, for the majority of those who attended. It was difficult to try to program these seminars to meet the needs of each different type of individual since we try to cover the design field, maintenance, sales, building operation, etc. Our total attendance was approximately 135, which is down from previous years, and we have yet to determine what might have been the reason. Suggestions and help toward future seminars as to subject material and participants would be greatly appreciated. We want to thank Tom Gilbertson and his committee for again putting on this seminar. Those of you who have been involved know what a big job it is.

One of the biggest committee assignments this year, was the Energy Committee, which was chaired by Dick Glumac. We met a few times to again go over ASHRAE 90-P and to review the State of California's Advisory Committee on Energy Conservation and New Non-Residential Structures Work to date. The committee made many suggestions on the additional modifications to 90-P and sent them back to National in time for the final review. For those of you who are not aware, the proposed regulation which will be presented to the State and become Law, some 180 days hence, the committee is working on draft 6 or 7 and they have almost reached their final form. Tom Simonson is the chairman of this group and has done a fantastic job and Tom will speak to us in our June Meeting about the progress of this committee's activities to date. San Francisco can be proud that one of their members Tom Simonson was selected, not only to serve on this committee but to act as its State Chairman.

Our Social this year was a fantastic success, and I want to thank Jerry Kechter for his arrangements in putting this thing together. It consisted of taking buses from Union Square to the Robert Mondavi Vineyards near St. Helena. We left Union Square at around 5 o'clock and toured the winery and tasted some of their different wines. We had an excellent dinner which was catered by the Chateau Restaurant in Oakland, Kaiser Center and then left by buses and returned to San Francisco. We didn't contact all 102 of those who attended to see if they enjoyed themselves but for the ones that I did talk to it seems as if they thought the entire evening was a big success.

For those of you I have overlooked I would like to say thanks for your activities with ASHRAE. It has been a pleasure serving as the President and having worked with the officers which are going to take over the reign, I can assure you that next year will be even a greater year in the Golden Gate Chapter of ASHRAE.

MEETING OF MAY 3

In lieu of the minutes of the past meeting, which are missing due to a lack of business conducted, a formal report of the annual social event is in order.

On the evening of Saturday, May 3 a couple of chartered buses left Union Square, in the city, about 5 pm with the swingers of the Golden Gate Chapter and headed north across the Golden Gate. After picking up the Marin County contingent at the Holiday Inn in Terra Linda and waiting for the first bus to find its way out of Sonoma we all eventually arrived at the Robert Mondavi Vineyards somewhere north of Napa in a condition that varied from sober to inebriated, due to the special attention from Jerry Kechter and his volunteer corps of amateur bar tenders. Somebody said about 110 people were present. In any case, there were enough to make a good party. A lot of guests showed up which helped to swell the ranks and this did improve the flavor of the party.

The winery, which someone said was created out of Sunset Magazine, was duly inspected and approved, and the neat view from the winery, across the vineyards, to the nearby mountains was appreciated. Three wines we tasted were Fume Blanc, Gamay and Gamay Rose, plus all the Zinfandel we could hold, for dinner. By this time the music being created by the Latin combo retained for our pleasure sounded like the Boston Pops Orchestra, and a few of the hardier members of our group made it to the dance floor for a little exercise.

All too soon the time to board the buses and return to the bright lights of the big city arrived and this reporter zonked out in the back of the bus with happy thoughts of a very pleasant evening.

Thank you Jerry Kechter!

TREASURER'S REPORT FOR APRIL

<u>Month Ending</u>	<u>Income</u>	<u>Expenses</u>	<u>Member's Equity</u>
4-30-75	\$3,387.05	\$1,606.47	\$3,398.61
3-31-75	559.09	771.05	1,618.03

Submitted by most respectful treasurer Gene Valerio

GOLDEN GATE CHAPTER - ASHRAE

1975 - 1976

President	Jack A. Palmer	341-6100
Vice President	Carl Jordan	981-1555
Secretary	Gene Valerio	871-6808
Treasurer	Dick Glumac	398-7667

BOARD OF GOVERNORS

Richard A. Charles	434-2720
Tom Gilbertson	543-6766
James Holden	871-8292

<u>Board Liaison</u>	<u>Committee</u>	<u>Chairman</u>	<u>Phone</u>
Carl Jordan	Program	Carl Jordan	981-1555
Carl Jordan	Pre-meeting	Roy Anderson	472-0291
Gene Valerio	Membership	Charles McLaughlin	326-9115
Jack Palmer	Reception & Attendance	John May	645-6005
Tom Gilbertson	Publicity	Dave Attard	341-6100
Jim Holden	"Fog Dispenser"	Nick Dann	873-1660
Jack Palmer	Roster	Dave Waterworth	781-4211
Gene Valerio	Education	Don Bryant	584-0765
Tom Gilbertson	Cal Poly Workshop	Tony Costa	982-8293
Carl Jordan	Code	Tom Campbell	296-2525
	Honors & Awards	Richard Charles	434-2720
Jim Holden	Honor Roll	Nick Dann	873-1660
Jack Palmer	Raffle	Dick Frenzel	873-1660
Gene Valerio	Research Fund		
Dick Charles	Seminar	John Carriger and Dan Kennedy	397-1712 834-2333
		Steve Sprague	434-2720
Dick Glumac	ESCMT	Tom Gilbertson - Delegate	543-6766
	Engineering Council	Jim Holden - Alternate	761-0815
		Cordula Riley	824-0694
Dick Charles	Historian	Pete Filios	588-8437
Jack Palmer	Golf Tournament	Jerry Kechter	467-3751
Jack Palmer	Annual Social	Dick Glumac	398-7667
	Energy Conservation		

CRC - 1976	-	Orange Empire Chapter - Disneyland Hotel
Carl Jordan	-	Delegate
Gene Valerio	-	Alternate

Regional Director - Region 10
Richard Perry
c/o Perry Engr. Ltd.
1127-510 West Hastings Street
Vancouver, B.C. Canada V6B1L8



GOLDEN GATE CHAPTER



ASHRAE

VOLUME XV - NO. 1

OCTOBER 1975

PROGRAM COMMITTEE CHAIRMAN - CARL H. JORDAN

The first meeting of the Golden Gate Chapter for the 1975-76 year will be held at the Engineers' Club in the Hong Kong Building, 160 Sansome Street, San Francisco on Thursday night - October 2, 1975. The Social Hour will begin at 5:30 P.M. with dinner at 6:45 P.M.

PROGRAM - OCTOBER 2, 1975

Subject: "The Inescapable Facts of the '70's"

Speaker: Bruno Morabito
ASHRAE Vice President
Manager of Product Marketing
Machinery & System Division
Carrier Air Conditioning Company

Mr. Morabito, visiting us from Syracuse, will speak on the "The Inescapable Facts of the '70's" an energy discussion including ASHRAE Standards, the impact of energy consuming systems, government regulations, and the renovation market. In addition, he will speak a few minutes regarding ASHRAE research, dues, etc.

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MACHINERY & SYSTEMS DIVISION

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658-6717



CORNER

PRESIDENT'S



JACK A. PALMER

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 Richard A. Charles

COPY DEADLINE

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Meeting Date	Copy Deadline
2 Oct. 1975	15 Sept. 1975
6 Nov. 1975	22 Oct. 1975
4 Dec. 1975	19 Nov. 1975
8 Jan. 1976	22 Dec. 1975
5 Feb. 1976	21 Jan. 1976
4 Mar. 1976	18 Feb. 1976
1 Apr. 1976	17 Mar. 1976
6 May 1976	21 Apr. 1976
3 June 1976	19 May 1976

KNOW A PROSPECTIVE NEW MEMBER?

Contact Membership Chairman:
 Chuck Mc Laughlin - 415-326-9115

MAIL OR PHONE NEWS TO:

Nick Dann, Editor
 FOG DISPENSER
 337 Roebling Road
 So. San Francisco, Ca 94080
 (415)-873-1660

Dear Members:

It is an honor to be your President for the coming year which offers many challenges in our field. All of us should recognize that the field of energy conservation is in our hands and what we do with it concerns all people!

I urge all of you to attend our meetings and contribute your energy to the design and code changes which are forthcoming.

At this time I would like to thank Dick Charles and Lew Pollock for their leadership during their years in office. It's a tough act to follow, but with the Board of Governors and the Committee Chairmen who have offered their services, I am sure we will have a great year!

Cy Hansen of Bentley Engineers called from Reno, Nevada to offer his thanks to the Golden Gate Chapter, particularly Leo Dwyer and Gene Valerio, for their help on the formation of the new Northern Nevada Ashrae Chapter. Anyone interested in attending their first meeting on October 4, 1976 should contact Gene Valerio this year.

I have asked the committee chairmen to send in reports to be published in the "Fog Dispenser" at various times so that all members have an idea of what is going on in the Chapter. You may be interested to know that of 429 active members, 116 voted last year. Our average attendance was 105. A total of twenty-six members have offered their services on our various committees.

I hope all of you will do your share, and more, in order to maintain the fine record of the Golden Gate Chapter!

CONGRATULATIONS, KARL BALDWIN...

upon your advancement to Life Member.

ROSTER COMMITTEE REPORT

The 1975-1976 Roster Committee will be guided by Dave Waterworth and Bill Schultz. They want to remind you good members that November 1 is the deadline for the payment of chapter dues. The Roster "books" close at that time and those who have not paid will be unable to locate their names in the 1976 Roster.

AUDIT COMMITTEE REPORT

The Audit Committee met on July 14, 1975 for the purpose of auditing all financial transactions of the Chapter during the period of July 1, 1974 thru June 30, 1975.

The Audit Committee has reviewed and inspected the Treasurer's books and found them to be in order.

Respectfully Submitted,

AUDIT COMMITTEE

H. Duncan
 P. Filios
 H. Shastany, Chairman

KENWARD S. OLIPHANT

It is with regret that we report the passing of Ken Oliphant, long time Member of ASHRAE, on August 30, 1975 in Sendai, Japan. Ken was a former president of the Consulting Engineers Association of California, and a member of the Board of Registration for Professional Engineers of the State of California. We shall miss him.

CHANGE OF ADDRESS

Many Golden Gate Chapter Members have changed their place of business or home address and as a result ASHRAE mail is not being delivered. Printed below is a change of address form for your convenience to clip out and notify Grace Hackett so your mail will be forwarded correctly:

To: Golden Gate Chapter, ASHRAE
 Mezzanine, Jack Tar Hotel
 1225 Post Street
 San Francisco, Calif, 94109

CHANGE OF ADDRESS

Name: _____

New Business Address: _____

New Home Address: _____

New Mailing Address: _____

- f. The regulations will be prescriptive in nature and will allow alternate designs if supported by computerized energy calculations. The problem is that there is no acceptable energy computer program in the public domain. The available ones are proprietary, and comparisons among the different programs reveal that they come up with substantially different results.
- g. The Golden Gate Chapter declined to allow the State to print the Chapter's outdoor design temperature data in their State publication (President Charles responded that the reason for this was that it is felt that the Golden Gate Chapter's data is quite old, subject to revision to include degree days, and subject to revision to be in agreement with the Holiday method of reporting temperatures. The Chapter didn't want to get its 1965 data published in State regulations where it would be much more inaccessible for updating).
- h. The regulations being developed will include constraints on the building envelope, systems, equipment, domestic hot water heating, electrical distribution systems, and illumination (based on watts per square foot).
- i. The regulations will include a maximum fan performance index of 5; with the index defined as the product of CFM per square foot and inches of water static pressure.
- j. The regulations will apply to comfort heating and cooling only and not to process loads, including manufacturing processes, computers, surgery rooms, etc.
- k. The regulations are now in their seventh draft and will ultimately be a part of Title 24.
- l. Final public hearings will be held on 6/16/75 in San Francisco and on 6/18/75 in Santa Ana. On 7/1/75, after a brief hearing, the regulations will probably be adopted on the same day.
- m. The latest draft of ASHRAE Standard 90P will be mailed to various panel members on 6/7/75. Their responses are due by 6/17/75. It is expected that the Standard will be adopted by ASHRAE on approximately 6/20/75 in Boston.

It is further expected that the ASHRAE Standard will be adopted as national regulations and will probably therefore supercede the California regulations being developed at this time.

Jack Palmer reported that the next meeting of the Chapter will be on October 2, 1975.

Respectfully submitted,

Carl H. Jordan

MINUTES

Meeting was called to order by President Charles at 7:30 p.m.

tion, second and passed. Approved Minutes of 4/3/75 meeting (Secretary has made following corrections to those Minutes: in Paragraph 4 correct spelling of Charlie Hardeman's name; in Paragraph 8 correct spelling of Bob Swezey's name; Paragraph 10a correct spelling of Len Lewis's name).

President Charles and the Chapter thanked Jerry Kechter for his fine efforts in planning the May social.

President Charles reported that there were approximately 16 Golden Gate Chapter members at the Region X CRC Meeting in Honolulu. The total attendance was approximately 175. Jack Palmer reported that of the 6 motions the Chapter took to CRC, 5 were passed; and that a regional award of merit has been presented to Don Bryant for his efforts on the Education Committee. The CRC meeting will be in San Francisco in 1978.

The annual golf event was a success: 48 people played golf; 37 people attended the dinner; there was a \$22.00 profit.

President Charles reported that there was a SMACNA meeting tonight (6/5/75) and that their meeting topic was the same as ours--Energy Conservation Codes. SMACNA has apologized to our Chapter for this unfortunate conflict.

President Charles thanked this years Board Committee Chairman and membership for their activities during the year and reported that membership is up, meeting attendance is up, seminar attendance was down and consequently, the seminar income was down. In general, we had a fine year of Chapter activities.

President Charles welcomed incoming President, Jack Palmer, and presented him with the gavel. Mr. Palmer in turn presented outgoing President Charles with a certificate of appreciation and a diamond studded pin.

After a brief adjournment, the following talks were given:

Tom Campbell spoke on California residential energy regulations:

- The regulations are an outgrowth of a 1973 Senate Bill introduced by Senator Alquist.
- The legislation required that the regulations be at least as stringent as those of FHA.
- c. As a result of the legislation, an Advisory Committee was appointed to develop the regulations.
- d. The regulations cover H & I occupancies only (residential including hotels).
- e. The regulations stipulate maximum "U" factors for walls, ceilings & floors.
- f. The regulations stipulate maximum glazing areas for different types of glass.
- g. The regulations stipulate weather-stripping of doors and windows and requirements for duct and piping insulation.

Tom Simonson reported on pending energy conservation regulations for occupancies other than residential:

- a. He cautioned against entering into any owner-architect-engineer agreements which might require the architect and engineer to comply with energy conservation regulations without stipulating in great detail what is required of the architect and engineer. This is because the regulations are not yet in effect, but are expected to be very soon.
- b. Tom Simonson is Chairman of a State Advisory Committee which is an outgrowth of Senate Bill 144 in 1974.
- c. The regulations are expected to be issued on 7/1/75 and will be effective 180 days thereafter (approximately 1/1/76). The regulations will apply to all new buildings for which the "site preparation and construction" has not started prior to the effective date.
- d. AB1575 also passed, requires a new commission to be "in charge of all energy in the state".
- e. Committee attempted to develop regulations that would limit energy consumption in buildings based on BTU's per square foot per year, but they were unable to develop such regulations. Therefore, they decided to follow the basic pattern of ASHRAE Standard 90P which was already in development.



ASHRAE
GOLDEN GATE CHAPTER
Mezzanine, Jack Tar Hotel
1255 Post Street
San Francisco, 94109

GOLDEN GATE CHAPTER  ASHRAE

VOLUME XV - NO. 2

NOVEMBER 1975

MEMBERSHIP COMMITTEE REPORT

Think about it for a minute. You are involved in a professional group which is unique. Most groups of this sort tend to zero in on one aspect of their discipline. Not ASHRAE.

Members of this organization are involved in heating, air conditioning and refrigeration--from the initial concept to the final satisfactory operation. ASHRAE is not concerned with just the design, just the sale or just the operation of systems.

You will be surprised to learn that there are over 500 national members of ASHRAE in the Bay Area. But, of this number, only about one quarter are involved in the Golden Gate Chapter.

We should all take it upon ourselves to involve these national members and others in our field in the local chapter. To help accomplish this, we are concentrating on a Membership Night, this coming meeting.

Bring a prospective member to dinner!

If the cost stops you and you need help, the Chapter will pick up the tab for qualified future members.

Contact the membership Chairman:
Chuck McLaughlin 326-9115
for authorization.

Applications will be available from:
Dart Rinefort (415) 686-6717
Pete Tidmarsh (415) 376-0424
Chuck McLaughlin (415) 326-9115

EDUCATION COMMITTEE REPORT

This year this committee plans to work on several activities. One is assisting Bob Braun with his Slide Show Presentation. This will present pictorially work and activities of engineers, contractors sales representatives, manufacturers, etc. The slides are to be used in both individual counseling and group discussions with junior and senior high school students. Bob requests that anyone having 35mm slides, which could be used for this purpose, please contact either him or any other member of the committee. Other activities may include: cooperating with Career Guidance, Bay Area Engineer's Council; promoting interest in the fields of heating, air conditioning and refrigerating in schools and colleges; and providing speakers when requested. Education Committee members are Roy Anderson, Bob Braun, Morris Konoff, and Don Bryant.

Don Bryant - Chairman

ASHRAE-DALLAS '76

The 1976 Semi-Annual ASHRAE Meeting and Exposition is scheduled for Dallas on February 1-5.

The Dallas ASHRAE Chapter, along with the Fort Worth Chapter is going all out to make this one of the most informative and entertaining meetings ever.

On behalf of the Dallas and Fort Worth Chapters, I would like to extend to you and all the members of the Golden Gate Chapter, a personal invitation to be with us at that time and experience, along with several thousand ASHRAE members, real Southern hospitality - Texas Style.

B.J.Melton, General Chairman

MEETING ANNOUNCEMENT

The second meeting of the Golden Gate Chapter for the 1975-1976 year will be held at the Engineer's Club in the Hong Kong Building, 160 Sansome Street, San Francisco, on Thursday night, November 6, 1975. The Social Hour will begin at 5:30 P.M. with Dinner at 6:45 P.M.

NOVEMBER PROGRAM
Carl Jordan, Chairman

SUBJECT: DESIGN & CONTRACTING METHODS
A discussion of HVAC designs by consulting engineers versus design/build contractors; and bid versus negotiated construction contracts.

DISCUSSION LEADERS:
Dick Glumac - Glumac & Webster
Jim Holden - Valley Sheet Metal

NOVEMBER WORKSHOP

Roy Anderson, Chairman 6:00 - 6:45 P.M.
Upstairs

A BURNING ISSUE !

Mr. Lee Hancock of Armstrong Cork will present slides and a running commentary on the latest ASTM, FACTORY MUTUAL, NBS and ARMSTRONG methods for testing the combustibility, surface flammability, insulation and smoke generation characteristics of various materials. Refresh yourself with a learning experience as to how specimens are prepared, test chambers constructed, and materials rated with respect to fire safety.

HONOR ROLL

A.R. PETERSON & SONS

20478 Mission Blvd
Hayward, Ca. 94541

Telephone
278 - 7500

RECEPTION AND ATTENDANCE COMMITTEE

We have as members of the above committee this year:

Richard Porter, Yamas Co., 1 South Linden Avenue,
So. San Francisco 94080 (761-5123).

William B. Schultz, Powers Regulator Co., 1305
Grand View Drive, So. San Francisco 94080 (871-1944).

John E. May, Kaiser-Permenente, 1956 Webster St.,
Oakland 94612 (645-6005).

As instructed by the president, member badges were requested from Richard Iwanaga for Grant Bentley, Al Eynon, and Dr. William E. Nesbitt; and a past president badge for Richard A. Charles. They should be ready for the next meeting, according to Dick.

Some hours of work were put in trying to update our collection of badges together with the existing membership roster. To bring things in order needs more work, and hopefully we will be in shape by November.

The list of members and guests in attendance at the last meeting was sent in by Dick Schultz on October 6, 1975.

Sincerely,

John E. May, P.E.

STATE ENERGY COMMISSION MEETINGS

Any member interested can be put on the mailing list to receive minutes of the State Energy Commission Meetings, drafts of standards, and the like by addressing a request to: Energy Commission, 455 L Street, Sacramento, Ca.



CORNER

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JACK A. PALMER

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 Eugene L. Valerio Secretary
 Dick M. Glumac Treasurer

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COPY DEADLINE

In order to meet our publication dates, we have established the following as the last possible dates that copy for the Fog Dispenser can be in the editor's hands.

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KNOW A PROSPECTIVE NEW MEMBER?

Contact Membership Chairman:
 Chuck Mc Laughlin - (415) 326-9115
 Or Committee Members:
 Dart Rinefort - (415) 686-6717
 Pete Tidmarsh - (415) 376-0424

MAIL OR PHONE NEWS TO:

Nick Dann, Editor
 FOG DISPENSER
 337 Roebling Road
 So. San Francisco, Ca 94080
 (415)-873-1660

Dear Members:

Our first meeting of the year was a fine one and I'm sorry for the members who were unable to attend. Our November meeting will be one in which all of you may participate. Come and express your viewpoints on this very real controversy!

We will be honored to have Mr. and Mrs. Richard Perry as guests at our next meeting. Dick is the new Regional Chairman for ASHRAE Region X. He has been an active member since 1956 including Past President of the British Columbia Chapter, receiving the ASHRAE Distinguished Service Award, and author of a number of technical papers. As a consulting engineer, Dick has been responsible for the design and construction supervision of many large HVAC systems.

Our next meeting will be "Membership and Students Night". If any of you have friends or students interested in our industry, please invite them to this meeting.

Due to the efforts of Past President Dick Charles and his Board, our Chapter will receive its first Award of Excellence for the 1974 - 1975 season. I hope we are able to duplicate this achievement for the 1975 - 1976 season.

Your Chapter has recently donated \$500.00 to City College of San Francisco for the ASHRAE Donald Bryant Scholarship Award.

This years Historian is Cordula Riley our first lady Committee Chairperson! Should any of you have any historical data, please forward to Cordula.

I would appreciate any comments from the members on the operation of this Chapter. The Officers and Board Members are here to serve you. Remember, you must put something in in order to get something out!

TREASURERS REPORT

FOR MONTH ENDING	TOTAL ASSETS	TOTAL LIABILITIES	MEMBERS' EQUITY	TOTAL LIABILITIES AND EQUITY
Aug. 1975	\$5353.87	\$3196.00*	\$2157.87	\$5353.87
Sept. 1975	\$5373.99	\$3198.00	\$2175.99	\$5373.99

* For August 1975, \$25.00, A/C # 230, Cal-Poly Workshop, returned to Fiscal Year 1974-1975.

Respectfully submitted,
 Dick Glumac
 Treasurer

STATE ENERGY COMMISSION MEETINGS

Any member interested can be put on the mailing list to receive minutes of the State Energy Commission Meetings, drafts of standards, and the like by addressing a request to: Energy Commission, 455 L. Street, Sacramento, California.

MINUTES - GENERAL MEETING OCTOBER 2, 1975

Meeting was called to order at 7:50 PM by President Palmer. Minutes of the June meeting were approved.

Robert Braun announced the need for a Career Counseling Representative in the southern part of San Francisco for the SFBAEC. There was a short break followed by the raffle. Carl Jordan (Program Chairman) announced topics for future meetings; solar energy, life safety, and a panel to debate design/build vs. plan/spec.

Jordan then introduced Bruno Morabito, First VP of the Society, and Director of Marketing for the Machinery and Systems Division of Carrier Air Conditioning Company, who first discussed ASHRAE business, as follows:

- ASHRAE is a bargain because of its publications, meetings, research, and expositions. ASHRAE is the only major engineering society with a large research program, and the only one to achieve growth in recent years.
- ASHRAE needs a better image and recognition of the expertise of its members. A Public Relations firm has been retained, and they have achieved good results.
- Headquarters has been made more cost efficient in its publications and staff. Dues were increased in '74-'75 after a deficit in '73-'74. Another increase is not expected for 5 years.

After asking for continuing support of ASHRAE, Morabito made a presentation entitled "The Inescapable Facts of the Seventies," whose main points were:

- Energy availability and costs will continue to be problems, but people must be comfortable. Building owners look to the HVAC industry for solutions. Our answers will be influenced by (1) pressures from government, (2) ASHRAE Std. 90-75, (3) renovation market, (4) ASHRAE Std. 100P, (5) codes and legislation, (6) design conditions, systems and equipment.
- Government pressures include a tax on imported oil; guidelines for building operation by GSA and NEMA; state-mandated standards; and the need for common action seen by NCSBCS: the latter two leading to the production of ASHRAE Std. 90-75.
- Formerly 90P, Std. 90-75 as the design basis will result in more efficient buildings. The energy source section is not yet a part of the Standard, but is under review. ASHRAE is planning seminars nationwide to explain the standard.
- The renovation and retrofit market will grow in importance as new construction slows down as expected. Most "old" buildings (those not designed per Std. 90-75) use 30-50% more energy than they should or can afford.
- Standard 100P (P for proposed) is in the planning stage to develop guidelines for existing buildings to make them energy efficient.
- Building owners will not buy more expensive energy-efficient systems until legislation demands it. The issuance of Std. 90-75 means that states will have a reference or base for revisions of codes and standards.
- Design conditions can be changed for energy efficiency and yet produce comfort. System selections will have to differ in the future, and comparisons of energy usage for various systems were shown. Equipment designs must be changed. As an example, much unitary equipment today does not meet the EER (Energy Efficiency Ratio) suggested by Std. 90-75 for 1/1/77, and most equipment today does not meet the EER suggested for 1/1/80.
- Not all Variable Air Volume equipment has the same characteristics, and heat reclaim should not be selected indiscriminately but should be analyzed for cost vs. benefit.
- After summarizing his presentation, Morabito stated that business has often been accused of selling the public something it may want but doesn't need, but with regard to efficiency, it seems we may have to sell them something they may not want but absolutely need.

An extended question and answer period followed the presentation, and the meeting was adjourned.

Respectfully submitted,
 Eugene L. Valerio, Secretary

ASHRAE ATTENDANCE 10/2/75

MEMBERS

- | | |
|-------------------|---------------------------------|
| Jim Taylor | A & B Metal Products |
| Carl Landers | Trane Company |
| Ubo Mulder | Van Mulder Sheet METAL |
| William Broderick | Honeywell, Inc. |
| John Werner | Trane Company |
| Per Sonander | W. A. DiGiacoma Engrs. |
| Cal Laws | S. O. M. |
| George Aronovsky | Aronovsky Assoc. |
| Pete Tidmarsh | York |
| H.F. Ferry Jr. | A.J. Bovey |
| Ed Beeching | Engineered Air Systems |
| Dart Rinefort | Carrier |
| Dick Porter | G.J. Yamas Co. |
| Gino Colacchia | University Mechanical |
| Leo Bus Pumphrey | University Mechanical |
| Bruno Morabito | ASHRAE/Carrier |
| Carl Jordan | S.O.M. |
| Jack Palmer | California Hydronics |
| Gene Valerio | Air Filter Control |
| Dick Charles | Charles & Braun |
| Jim Holden | Valley Sheet Metal |
| Tom Gilbertson | L & H Air co. |
| Ed Merino | H.G. P. |
| Al Eymon | G.L. Gendler |
| Jerry Huffman | Carrier |
| V. Parksnsksy | Kasin, Guttman & Assoc. |
| Tom Namberumal | Kasin, Guttman & Assoc. |
| Pete Filios | Flame Air |
| Max Wolff | Dill & Sederburg |
| Dan Vandament | Vandament Engrs. |
| Jim Breese | J.L. Breese |
| Kenneth Hill | Kaiser Engrs. |
| Karl Baldwin | Bechtel Power Corp/ |
| Bob Phillips | Kennedy Engrs. |
| Howard Friesen | G.J. Yamas Co. |
| Kaz Inouye | Kasin, Guttman & Assoc. |
| Gerry De Reus | Mechanical Maint. & Service Co. |
| Cordula Riley | Marellich |
| Ray Herman | unattached |
| Ray Fujioka | Consulting Engineer |
| Keith Lescure | A.R. Peterson & Son |
| R.H. Judd | Montgomery & Roberts |
| Chuck Chappel | County of San Mateo |
| Bob Swezey | Air Filter Control |
| Kevin Dowling | Bentley Engineers |
| Raj Jandau | Bentley Engineers |
| Grant Bentley | Bentley Engineers |
| Gene McCabe | Western Plbg. & Heating |
| Mitch Allert | Trane Company |
| Jack Kniveton | Norman S. Wright Co. |
| Jim Lazor | E.B. Ward Co. |
| Dick Friedman | Engineered Air |
| Karl Tulp | E.B. Ward Co. |
| Ken Lloyd | Lillard Co. |
| Davis Waterworth | P.G.&E. |
| Bob Wistort | Mickey Mouse Engineering |
| A.G. Schjaerve | Simonson & Simonson |
| Don Delaney | G.J.Yamas Co. |
| Ray Anderson | City College of San Francisco |
| D.C. Bryant | U.C. Extension |
| M.L. Huddleston | Columbia Mechanical |
| Michael Rich | Gaffigan Co. |
| Ed Long | Honeywell, Inc. |
| Bill Schultz | Powers Regulator Co. |
| Bud Dauphinee | Jenkins Bro. Valves |
| Hendrick J. Mow | S.O.M. |
| Fred Farmer | Heat Transfer Equipment Co. |
| Chuck Hallock | Alco Controls |
| Vince Aiello | Vann Engineering |
| Nick Dann | E.B. Ward Co. |
| Bob Braun | Charles & Braun |
| Richard Wells | Montgomery & Roberts |
| Dick Frenzel | E.B. Ward Co. |
| Richard Oas | Safeway Stores |
| Gerry Roth | Roth Assoc. |
| Dave Attard | California Hydronics |
| John Kraft | Cornely Co. |
| Robert Voelz | Bentley Engineers |
| Bernie Beckius | Scott Company |
| Tom White | American Standard |
| Jerry Kechter | Trane Company |
| Lewis Pollock | Trane Company |
| Hank Shastany | York |
| Steve Sprague | Charles & Braun |
| Roy Gifford | Charles & Braun |
| Joel Frey | Norman S. Wright Co. |



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Oct. 1975	\$4950.39	\$2696.00	\$2254.39	\$4950.39

Dear Members:

The deadline for your name to appear in our Roster has now passed. If you have not paid your local and national dues, you will not receive any further issues of the "Fog Dispenser".

I am sure those of you who have not paid realize what you will be missing. So, as one past president has said, "GOYA"!

We have had some complaints from the Engineers Club regarding dinner reservation cards not being returned to them. You may not realize that we are penalized in the form of M-O-N-E-Y if we are not within 10% of attendance. Therefore, please send your reply card in as soon as possible!

If any members require the "Weather Data Bulletin", they are available at a cost of \$2.00 per copy. Please contact Carl Jordan or myself.

Our Chapter has been selected to sponsor a seminar on the use of Standard 90-75 next Spring. Information will be forthcoming.

We had hoped that the Golden Gate Chapter would host the 1980 ASHRAE show; however, it appears that due to the lack of exposition area the show will be held in Los Angeles. This is due to not building the Yerba Buena Exposition Center!

If you are interested in committee work at the national level, please let your Board know.

We had an excellent meeting on November 6th with 137 members and guests! Come on out and learn what is going on in our industry!

Your Board has approved forming the "Solar Energy Committee" of which F. Tom Collins will be Chairman. If any of you are interested in becoming a member, please contact Tom Collins.

MINUTES - GENERAL MEETING OCTOBER 2, 1975

President Palmer opened the meeting at 7:45 PM with self-introductions of members and guests; thereafter called a short break, and reconvened with approval of the minutes of the last General Meeting.

Palmer recognized two new life members: Karl Baldwin and Tim White.

Richard Perry, Region X Director, introduced Standard 90-75 and asked the membership to promote its use, and announced a seminar on 2/16/75 in San Francisco for all facets of the industry on the use of the standard.

Perry presented the Chapter an Award of Excellence for the 1974-1975 year.

Jordan, Program Chairman, reported that the 12/5/75 meeting will cover Metrification, and announced topics for future meetings.

Gerry Yaffee introduced the evening's program, a panel discussion of who is best qualified to design, install, and supervise a building project. Representing the consultant's view were Dick Glumac and Leo Dwyer; for the design/install contractors, Jim Holden and Fred Vann. Glumac's position was that the only and best way is to engage an independent consultant whether project is bid or negotiated. The design will consist of a set of precise contract documents prepared by the Consultant under contract with an architect; owner, or contractor for a fee, which should include a review of the final installation.

Four reasons why a consultant is best:

- He is an independent agent.
- He has no commercial interest in the project or materials used.
- He is licensed.
- He must look at the ultimate use of the building over a long period of time.

Any other way is risky: it is difficult for a contractor to be objective; he makes commitments on sketchy info, and his primary objective is to get the job within the dollars available. An engineering contractor does not exist; he is either an engineer or a contractor.

Vann related the historical basis for the design/build contractor, and his own ammonia experience in 1945 leading to air conditioning eventually. Initially there was more separation between consultant's jobs and his; now more overlap.

Strong points in favor of a contractor design/build are:

- Undivided responsibility.
- Guaranteed maximum cost and solid budget figures in the planning stages.
- Virtual elimination of cost extras typically asked by a bidding contractor.
- Innovations in design and installation are promulgated quicker.

Leo Dwyer advocated bidding in a responsible framework, but the problem is determining "qualified" bidders. With a good set of plans and specs, owners will benefit, because he knows his cost and what he will get.

Dwyer stated that bidding supports:

- Marginal contractors
- Marginal suppliers
- Suppliers of marginal equipment.
- East of Nevada, may support the marginal consultant, who may on occasion negotiate for covert purposes.

Dwyer stated Webster's definition of negotiate as "to hold intercourse with a view to coming to terms."

Holden then defined negotiating as meeting with principals to develop a price satisfactory to all; within budget, yet profitable to the contractor. There are four ways to do it:

- Consultant designs as building starts: Method saves time, but costs can get out of hand; method should not be used.
- Consultant is hired by architect or owner to work with contractor: Method give owner a firm budget price and saves time, but he does not get full benefit of contractor cost savings, and responsibility is divided.
- Consultant hired by contractor: Method takes full advantage of cost savings by contractor.
- In-house contractor design: Method provides firm budget price, lowest cost, and fastest pull-together of the job.

In summary, Holden mentioned: firm price, short time to start, reduced cost because of contractor know-how, and no buck-passing as advantages, but said that not every project can be negotiated.

Each panelist then made a few points in rebuttal or to strengthen his case, and questions from the floor were fielded. Adjournment followed.

Respectfully submitted,

Eugene L. Valerio

ASHRAE ATTENDANCE 11/6/75

MEMBERS

- Gerry Yaffee
- M. Stuart Stevenson
- Cal Laws
- Al Eynon
- Howard Friesen
- Dick Porter
- Gerry De Reus
- Ubo B. Mulder
- Bill Boganwright
- Morris Konhoff
- Gino Colacchia
- Bus Pumiphrey
- A. Bechert
- Dave Attard
- C.S. Hardeman Inc.
- John May
- Walt Scaneider
- John L. Brose
- John Kraft
- Ed Beeching
- Dave Rifkin
- Al Scavino
- Barney Baxter
- Dick Friedman
- Pat Patterson
- Rudy Pribuss
- D.G. Burr
- Rich Wells
- Tom Namberumal
- D.H. Fujioka
- Jim Nemeche
- Richard E. Gee
- Karl Baldwin
- Ken S. Tong
- Terry Scavone
- Bob Roach
- Chuck McLaughlin
- Al West
- D.C. Bryant
- Kaz Inouye
- Jim Curtin
- Woody Hoogs
- Frank Irwin
- Bob Judd
- Bob Lincoln
- E.W. Simons
- Bob Swezey
- Marlin Whitney
- Roy Graves
- Don Delaney
- Bill Schultz
- Gregory Braak
- Dennis H. Stevens
- Dick Frenzel
- C. Riley
- Tom White
- Dart Rinefort
- George Aronovsky
- Bud Fierry
- Dieter Meissner
- L.S. Pollock
- Grant Bentley
- Raj Jandu
- Art Gamble
- D. Waterworth
- Max Wolff
- Roy G. Anderson
- Dan Vandament
- Leo Dwyer
- Dick Glumac
- Fred Vann
- Tom Gilbertsol
- R.F. Giovannini
- Pete Knezevick
- Michael Rich
- Henry Huddleston
- Don Loeblein
- A. Berrier
- Tom Colling
- Tempco Equipment Company
- DiGiagomo Associates
- Skidmore, Owings & Merrill
- G.L. Gendler & Associates
- G.J. Yamas Company, Inc.
- Dick Yamas Company, Inc.
- Mechanical Maint. & Service Co.
- Van-Mulder Sheet Metal Inc.
- Pacific Pumping Company
- Mechanical Consulting Company
- University Mechanical
- University Mechanical
- S.O.M.
- California Hydronics
- C.S. Hardeman Inc.
- Kaiser Permanente
- Robert B. Liles Inc.
- The Brose Company
- Cornely Company
- Engineered Air Systems
- Tempco Equipment Company
- Engineered Air Systems
- R.B. Liles, Inc.
- Engineered Air Systems
- Pameco-Air
- Pribuss Engineering
- Bechtel Power Corporation
- Montgomery & Roberts
- Kasin, Guttman & Associates
- Consulting Engineers
- Bechtel Power Corporation
- Marina Heating & Air Cond.
- Hess Greiner & Pollard
- McLaughlin Associates
- Colan Heating Company
- U.C. Extension
- Kasin, Guttman & Associates
- Fluor Utah
- Owens Corning Fiberglas
- Air Filter Sales
- Montgomery & Roberts
- Vann Engineering
- Edward Simons, Consulting Eng.
- Air Filter Control
- Vann Engineering
- McClenahan Company
- G.J. Yamas Company, Inc.
- Powers Regulator Company
- Johnson Controls
- Powers Regulator Company
- E.B. Ward Company
- Marelch Mechanical
- American Standard
- Glumac & Webster
- Aronovsky & Associates
- Bousry & Company
- Aeronutronic Ford
- Trane Company
- Bentley Engineers
- Bentley Engineers
- Gamble Instrument Sales
- P G & E
- Dill & Sederburg
- CCSF
- Vandament Engineers
- Ralston & Dwyer
- Glumac & Webster
- Vann Engineering
- L & H Air Conditioning
- Thermal Mechanical
- Industrial Power
- Gaffigan Company
- Columbia Mechanical
- Exolon Corporation
- Cal-Hydronics
- F. Thomas Colling & Assoc.