

nozzles.
6. Halon is a heavy gas and therefore tends to want to leak out of its containment boundaries.

Following the question and answer period, Mr. Sabah entered a small booth and demonstrated the effectiveness of Halon 1301 in extinguishing fires of various types.

Dave Rifkin adjourned the meeting at 9:50 p.m.

NOTICE TO MONITORS

Dick Glumac and John Brose would like all monitors who have volunteered to work the 1985 Winter meeting to attend a brief session before the January Chapter meeting from 5:30 to 6:00 pm for some last minute instructions and a Question & Answer period.

COUNTDOWN TO THE 1986 ASHRAE WINTER MEETING

All Chapter members who have volunteered to be members of the Host Committee should fill out and mail to Atlanta the ADVANCED REGISTRATION FORM which has been included in the September and October ASHRAE Journals.

Those spouses who will be active on Committees will also be registration fee exempt. Just indicate on the form that your spouse is also a Host Committee member.

The form should be filled out and mailed even if you are not planning to attend any of the social functions.

All attending the Social Functions will need tickets.

Remember, they must be received in Atlanta by December 16th.

Further to the above information, Tom White will have extra copies of

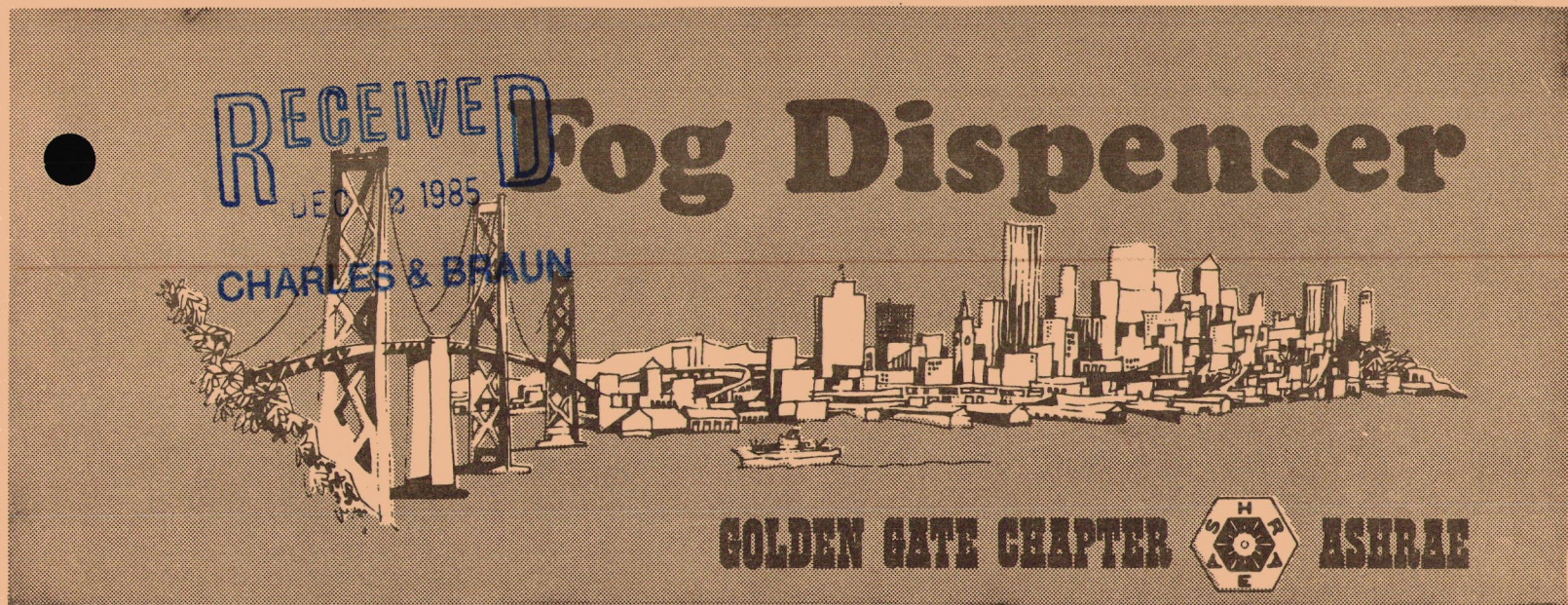
the ADVANCED REGISTRATION FORM at the chapter's December meeting. He will also have Registration Forms for those who will not be registering for the Society Meeting, but who will want to attend the Exposition at Moscone Hall.

MEMBERSHIP NIGHT

The December meeting is membership night and Fran Crisp, Membership Chairperson, makes the following offer to all members: bring a new member together with a completed membership application and a check to cover dues and you will receive a certificate for a bottle of wine.

NEW MEMBERS

- Arel Berrier, R.D. Kincaide Co.
Ross Beynon, R.L. Beyon & Assoc.
Cliff Chamberlain, James A. Nelson
Matt Goff, Air Filter Control
Paul Robinson, Owens-Corning Fiberglas
Jennifer Schuman, Flack & Kurtz
Paul Steckel, Van-Mulder Sheet Metal



VOLUME XXV NO. 3

DECEMBER 1985

MEETING NOTICE

DECEMBER PROGRAM

NEW MEMBER NIGHT

DATE: DECEMBER 5, 1985
TIME: 5:30 - 6:30 PM SOCIAL HOUR
6:30 - DINNER/MEETING
8:00 - PROGRAM

LOCATION: Engineers' Club
160 Sansome St., 16th Floor
S.F., CA (415) 421-3184

This month's program will present kitchen ventilation and hood design including information about the latest code requirements.

IF YOUR PLANS CHANGE, PLEASE BE SURE TO CANCEL DINNER RESERVATION(S) BY CALLING THE ENGINEERS' CLUB BEFORE NOON OF THE MEETING DATE.

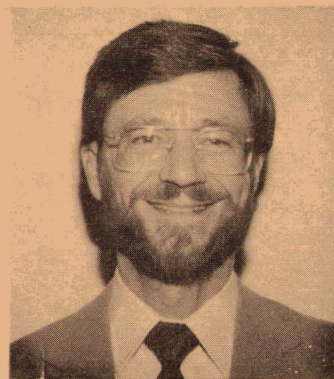
HONOR ROLL

ARONOVSKY & ASSOCIATES
(415) 755-8464

PARTIAL LIST OF COMPANIES REPRESENTED:

- CENTRAL BLOWER: Utility blowers, all types.
LISKEY-AIRE: Computer Room A/C units.
PSI: Flexible hose and self balancing hose kits (fire & smoke rated).
BEACON-MARS: Hydronic heaters, convectors, cabinet & unit heaters.
CHELSEA: Power roof/wall exhaust & supply fans, gravity vents, etc.
MAGIC-AIRE: Air handlers (UL).
TEMPROL: Central station air handlers, coils, all types
INTERTHERM: Wall mount heating/cooling units

PRESIDENT'S MESSAGE



Don't forget that Tom White still needs volunteers for the Winter Meeting in January. That date is fast approaching and final rosters of helpers have to be made up. Please let Tom hear from you.

Something to keep in mind! Since our normal January meeting date falls on the 2nd, we've decided to have it a week later to give people a chance to recover from the Holidays. More details later.

This may be a first - the Roster has been proofed and is at the printers now. It will be out before Christmas. We should all thank Lucy Santos and Tom Judson for the excellent job they are doing.

Dave Rifkin has another good program lined up for the December New Member Night. Hope to see you there with your guests.

Minutes of November meeting

Attendance: 99 Members, 29 Guests, 27 Students.

President Jim Nemechek opened the meeting at 7:45 with self introductions.

Richard Charles, Region X Chairman, made several announcements to the Chapter about the growth of ASHRAE including the recognition that Cal Poly had the first student branch which was formed over 50 years ago. Charles also announced that the Golden Gate Chapter accumulated 2400 points last year

You're all to be congratulated! The November meeting had the largest attendance on record for our Chapter. There were 175 members and guests according to the Engineers' Club. Included were (27) Cal Poly students plus Rod Keif, the head of the HVAC program at Cal Poly. The Bay Area has many Cal Poly graduates working in our industry and we're always happy to host the students. Thanks to those of you who volunteered to have a student as dinner guest.

The December meeting is New Member Night. I hope many of you are planning on bringing your new members. New people are necessary to keep our Chapter and Society vital. Also, I ask that you please show your best hospitality to new members and guests. It really helps if you can introduce yourself to them and help them meet other members.

COPY DEADLINE

To meet publication dates, the following deadlines are presented as the last possible dates for FOG DISPENSER copy to be in the Editor's possession:

MEETING DATE	DEADLINE
11/7/85	10/25/85
12/5/85	11/21/85
1/9/86	12/18/85
2/6/86	1/24/86
3/6/86	2/21/86
4/3/86	3/21/86
5/1/86	4/18/86
6/5/86	5/23/86

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Richmond, CA 94805
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1984-85 Officers

James Nemechek.....President
Dave Rifkin.....President-Elect
Dart Rinefort.....Secretary
Sherman Brown.....Treasurer

Board of Directors

Kevin F. Dowling
Gino Colacchia
Tom Reinarts

(4th regionally) and contributed over \$15,700 to the ASHRAE Research Fund.

Rod Keif, Cal Poly instructor, was introduced by Jim Nemechek. He thanked the Chapter for continuing to sponsor the Golden Gate Workshop Fund, and explained that the dollars were used for student aid. He noted that there was a marked increase in women interested in our industry. In January Rod wants to bring 40 students to San Francisco for the ASHRAE show and meeting and has asked our Chapter members to help with the housing for Sunday and Monday nights, January 19th & 20th (please contact any Board member if you are interested in helping with the housing of the Cal Poly students, so we can coordinate with Rod).

Jim Nemechek announced that next month's meeting was New Member Night and urged members to bring along a friend who might be interested in joining the Golden Gate Chapter.

Last month's meeting minutes were approved as published in the Fog Dispenser.

Carl Jordan, Entertainment Vice-Chairman of the Winter Meeting, requested volunteers to work as hosts and hostesses on the tour buses: Jan. 19 is the Calif. Museum - Oakland Tour from 12:30 to 4:30 and Jan. 21 is the S.F. Historical Tour from 9:30 to 4:00. Please contact Carl at 981-1555 if you can help.

The raffle winner, Gino Colacchia, won a free dinner for two in Chinatown compliments of Richard Gee of Bechtel.

Tom White, Winter Meeting Chairman, announced that all Golden Gate Chapter members that help as hosts, monitors, etc. can attend the technical meetings without paying the \$75 registration fee PROVIDED they fill out the registration forms in the edition of the ASHRAE Journal and send in to "ASHRAE MEETING DEPT., 1791 TULLIE CIRCLE N.E., ATLANTA, GA 30329".

After a short recess, Dave Rifkin introduced the speaker for the evening, Charles Sabah, President of C.A. Sabah & Co., who spoke on Halon 1301 and its use as a fire suppression agent in computer rooms.

Mr. Sabah described Halon 1301 as a clear, odorless gas which is heavier

than air. It is one of the least toxic gases in the halogenated hydrocarbon family. Contrary to popular opinion, Halon 1301 does not work by oxygen starvation, but rather by means of a chemical reaction. Typical concentration levels required for effective fire suppression are 5-6% by volume. At these levels of concentration, the gas is relatively safe and non-toxic.

He discussed the results of a test conducted by Fenwald in their test laboratories. A rack of computer tapes were ignited and within 2 minutes after ignition, all of the tapes were fully destroyed. Protected by a Halon 1301 system, the fire would have been put out within seconds without any damage to the computer tapes.

Mr. Sabah also stated that tests have shown that computer equipment lose their memory storage at temperatures in excess of 150 degrees F; at 200 degrees F warpage of components occurs and tape reels will ignite at 600 degrees F.

A question and answer period followed. Some of the responses were:

1. Halon 1301 does not destroy product; it is a clean gas, leaves no residue and is non-corrosive.
2. Halon 1301 cannot extinguish aluminum powder and magnesium fires.
3. City of San Francisco has an unpublished requirement to provide an exhaust system to purge a room that is protected both above and below the floor by Halon 1301. While 1301 is basically non-toxic and should be removed from the room by mechanical means, purge fans should be sized for 4-6 air changes per hour and should remove fumes from a low inlet or under floor because the gas is heavier than air. Purge fans should not be activated until at least 15 minutes after fire is suppressed.
4. Halon 1301 costs \$7-8/lb., about 1 lb. of Halon 1301 is required for 50 cu. ft. of space.
5. There are two types of systems: Spheres mounted above the ceiling (modular system) and central storage with cylinders installed in a closet and piped into a header that distributes the Halon 1301 to the

were discussed with their relative merits: natural (OSA), chemical and mechanical.

Mr. Advani concluded his talk by reviewing various mechanical systems that have been used in supermarket air conditioning including face & bypass, coil bypass, heat pipe, Safeway/GE method, and the Advani method. President Elect Dave Rifkin adjourned the meeting after a question and answer period.

TREASURER'S REPORT

Assets:	\$14,465.00
Liabilities:	395.00
Equity:	\$14,070.00

CAL POLY STUDENTS TO VISIT

Professor Rodney Keif and a group of Cal Poly students will be attending our 11/7 Chapter meeting so anyone able to help defray the dinner costs for our guests is encouraged to note so on their dinner reservation card.

S.F. BLDG. CODE RULINGS UPDATE

Carl Jordan advises that San Francisco Code Ruling HC-707 dated 9/3/85 includes the following interpretation: "The installation and use of portable heaters in hotels and apartments on a dedicated circuit for use as required heating has been permitted in the past. Effective immediately the installation of new portable heaters installed in units must be permanently attached and properly wired. Wiring for heaters shall conform to Section 220-15 of S.F. Electric Code."

NEW MEMBERS

Philip Wolstenholme, Brown & Caldwell
 Bob Jeffryes, Trane Co.
 Kristin E. Heinemeier, U.C. Berkeley
 Donald T. Haddon, Haddon Engineering
 Kenneth B. Dretzka, Jr., Dretzka and Assoc.
 Brian T. Chuck, Vann Engineering
 Dennis Thompson, Johnson Controls
 Elizabeth Khavina
 Chiu Ip Chow, DPW City & Cnty of S.F.
 Yakov Arshansky, Margaux Controls
 Vigen Minassian, Scott Co.

- continued -

For membership applications, contact Fran Crisp at Western Allied, (415) 326-0750.

MEMBERSHIP GRADES

Since there was some confusion about membership requirements at our last meeting the following summary should provide clarification and encourage some to apply for upgrade.

FELLOW - Honorary grade assigned for distinguished service in HVAC. Nominated at the CRC conventions.
LIFE MEMBER - Member of National ASHRAE for 30 years and be 65 or older. Pay no dues. Receive all Handbooks and privileges of any member.

RETIRED - Member of National ASHRAE for 15 years and be 60 or older. \$20.00 per year dues. Don't receive Handbooks; do receive Journal.

MEMBER - Requires 12 Society accredited years of experience. 5 years responsible charge, minimum. Experience credited as follows:
 P.E. License: 3 years
 Education (w/Degree): 1.5 years for each year

Education (w/o Degree): 1 year credit for each year

ASSOCIATE MEMBER - 8 Society accredited years of experience or a graduate of an accredited engineering curriculum.

AFFILIATE - Shall have experience in technical matters, design, operation or maintenance in HVAC field(s).

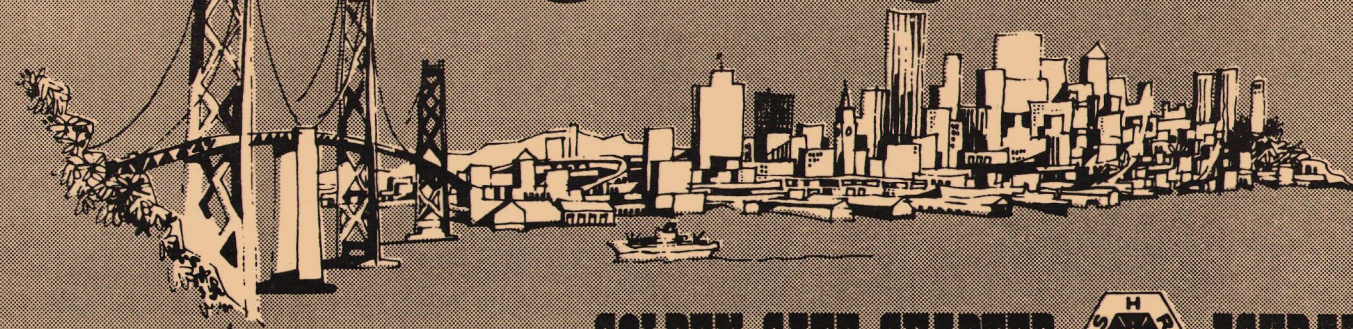
For any of you who have not kept your dues current I urge you to reinstate (i.e. pay your back dues). This way, you need not re-apply and you won't lose your Seniority.

Fran Crisp, Membership Chairwoman

EMPLOYMENT OPPORTUNITIES

HVAC Engineers needed to develop concepts for ventilation systems on major radioactive material handling facilities and/or clean rooms. BSME, Registration desirable. Total of 10+ years experience. Send resumes to:
 Jeanne H. Robinson
 Raymond Kaiser Engineers Inc.
 P.O. Box 31210
 Oakland, CA 94623

Fog Dispenser



GOLDEN GATE CHAPTER



ASHRAE

VOLUME XXV NO. 2

NOVEMBER 1985

MEETING NOTICE

NOVEMBER PROGRAM

CAL-POLY STUDENTS' NIGHT - PLEASE SPONSOR A VISITOR'S MEAL, TOO!

"Halon 1301 Systems and their interface with HVAC Systems" will be the title of November's program which will be presented by Mr. Charles Sabah of the C.A. Sabah Company, Pleasanton, CA.

DATE: NOVEMBER 7, 1985
 TIME: 5:30 - 6:30 PM SOCIAL HOUR
 6:30 - DINNER/MEETING

LOCATION: Engineers' Club
 160 Sansome St., 16th Floor
 S.F., CA (415) 421-3184

IF YOUR PLANS CHANGE, PLEASE BE SURE TO CANCEL DINNER RESERVATION(S) BY CALLING THE ENGINEERS' CLUB BEFORE NOON OF THE MEETING DATE.

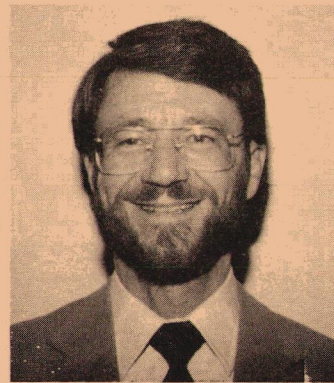
HONOR ROLL

MATERIAL SURVEY ASSOCIATES, INC.

Laurie, Jeff, Pat, Derek, Don & Tammy Kirsten

(415) 821-4303

PRESIDENT'S MESSAGE



be on the lookout. We have had a special appeal from Society for volunteers to serve on technical committees pertaining to refrigeration. We urge any of you who have this expertise to contact me and I will get you in touch with the right person at Society. Dave Rifkin, our President-Elect and Program Chairman, has an interesting program on Halon lined up for this next meeting. See you there.

OCTOBER MEETING MINUTES

Attendance: 77 Members, 15 Guests

- 1. President Nemecek opened the meeting a 7:45 pm with self introductions.
2. June meeting minutes as published in the Fog Dispenser were approved as written.
3. President Nemecek announced that reservation forms and information regarding the 1986 ASHRAE Winter Meeting & Exposition were published in the September '85 issue of the ASHRAE Journal.
4. Fran Crisp, Membership Chairperson, announced her plans to increase the Chapter's membership and encouraged membership support.
5. President Nemecek presented Certificates of Appreciation to the following Life Members: Joe Beck (Atlas Heating & Ventilating); Don Bradshaw (Retired); Tom Simonson (GM & TR Simonson); and Leo Dwyer (Ralston & Dwyer).

It was a pleasure having the newly elected Life Members as our guests at the October meeting. You made the meeting more enjoyable for the rest of us. Thanks for coming and we hope to see you at other meetings during the year.

For the information of those of you who weren't there, we announced during the meeting that the Golden Gate Chapter, under the leadership of Past President Kevin Dowling, was awarded the President's Award of Excellence for the '84/'85 year. Our congratulations to Kevin and all of you who worked to make that award possible.

Since one of our goals this year is the increase of membership, we will be having a special "New Member" night in December. I'm sure Fran Crisp, our Membership Chairwoman, will be publishing more on this, so

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- 1984-85 Officers: James Nemecek (President), Dave Rifkin (President-Elect), Dart Rinefort (Secretary), Sherman Brown (Treasurer). Board of Directors: Kevin F. Dowling, Gino Colacchia, Tom Reinarts.

- 6. Tom White invited the new Life Members to join the Life Members' Club.
7. Tom Judson announced that the Roster deadline is November 1st, 1985. Members whose dues are not paid on or before this date will not be included in the 1985-86 Roster. All Life Members receive the Fog Dispenser and Chapter membership at no cost.
8. Bob Linford reported that the 1984 S.F. City Code and the 1981 State Code requires smoke detectors at all 2-hour penetrations for all high rise office buildings, per Code Section 1807.d. Copies of the Code Section were distributed to interested members.
9. Gary Harbison, Education Committee Chairman, announced that he is looking for volunteers to speak at regional colleges and high schools about the HVAC industry. He noted that our Chapter receives PAOE (Presidential Award of Excellence) points for each engagement. Please contact Gary at 956-4964 if interested.
10. Frank Mayhew announced that Don Bryant recently had bypass surgery and therefore had to cancel his HVAC class on Psychrometrics. Frank is teaching a U.C. Extension class on the Theory & Application of Temperature Controls. It is held weekly at St. Marys Cathedral, Wednesdays, 7-9:30 pm. There are several more openings still available. If interested, contact U.C. Extension.
11. Dick Glumac, Chairman of the upcoming Winter Meeting, requested volunteers to act as monitors for technical sessions. Responsibilities would include setting up rooms, assisting speakers, etc. A sign-up sheet was circulated. For further information, contact Dick Glumac at 398-7667.
12. Following the announcements, the raffle was held by Phil Williams. The winner of the tickets for the 49er-Philadelphia Eagles game was Bob McCorkle. Congratulations, Bob!
13. President-Elect Rifkin announced his plans for upcoming programs: Nov. - Halon 1301 systems; Dec. - Kitchen hood design; Jan. - Fiberglass duct systems; Feb. - Glycol systems; March - Engineering noise control.

- April - Open
May - Field trip
June = Spouses' Night = Marriage Counselor

Dave also announced that the January meeting would be on the 9th (not the 2nd) and would be held in Chinatown.

After a brief intermission, Dave Rifkin introduced the guest speaker, Mr. Atma Advani, Senior Mechanical Engineer of Safeway Stores who presented his talk entitled, "Supermarkets & Humidity: New Method of Dehumidification". (Mr. Advani presented this same paper in Washington, D.C. last April, sponsored by ASHRAE).

Mr. Advani first discussed the two design considerations for supermarkets: Comfort & energy. Comfort factors include temperature gradients ranging from 56-76 degrees in various locations within the store and the elimination of cold air spillage by using kick plate returns. Energy usage in a typical 50,000 S.F. supermarket runs on average 52 KW/S.F./yr vs. 16 KW/S.F./ yr for a typical market. The profit margin runs less than 1% of gross sales. The breakdown of energy consumption is typically: Refrigeration: 54%, Lighting: 25%, Space conditioning: 17%, Misc.: 4%.

In most areas of the country, control of humidity is very important and proper control can reduce operating costs. Fortunately, in the Bay Area, no humidity control is necessary. The ideal indoor design conditions are 72-75 degrees F. dry bulb + 40-45% R.H. High humidity in store can require more frequent defrost cycles, cause greater cooling loads consuming more power and reduce consumer comfort.

Other design criteria mentioned by Mr. Advani for the typical 50,000 S.F. store: Ventilating Rate: 5 CFM/person; Occupancy Load: 1 person/100 S.F.; Typical Population: 50-180 people (ave = 100)

Several methods of dehumidification

information please call Pat at (415) 635-7911.

respond to Joanne Kitchen, Dunhill Personnel, 808-524-2550.

NEW MEMBERS

Fran Crisp, Membership Chairperson, has been busy since taking over the Membership Committee. Listed below are new members of Golden Gate Chapter who have joined during the Summer. For membership applications, contact Fran at Western Allied, (415) 326-0750.

Part time opening - general office work including typing, phones, posting, filing. M/F. Contact Bob Roach at RMR Inc., Mfg. Rep. (415) 591-2755

Harjinder S. Ajmani, Ajmani & Associates

Abdulkarim Alkhoutani, Bechtel

Sameer A. Aesh, Bechtel

Farhad Banisadr, Scott Co.

Joe Bendick, JBM Associates

Steven T. Chow, PG&E

Linda Elkins, Western-Allied

Ellie Larson, Sverdrup & Parcel

George M. Lim, Marelich Mechanical

Ric McGraw, Chevron Research Co.

Khlar Merzouk, K.M. Engineering

R. Paul Nelson, Mil-Spec Mechanical

Keith Rothenberg, Ajmani & Associates

Adel Abdullah Nasser Saleh, Bechtel

Eric Tinglof, Tempco Equipment Co.

Ken S. Tong, Bechtel Power

Corporation

Daniel Vasquez, Western-Allied Corp.

Win Turcios, Law Office of

Richard N. Dinallo

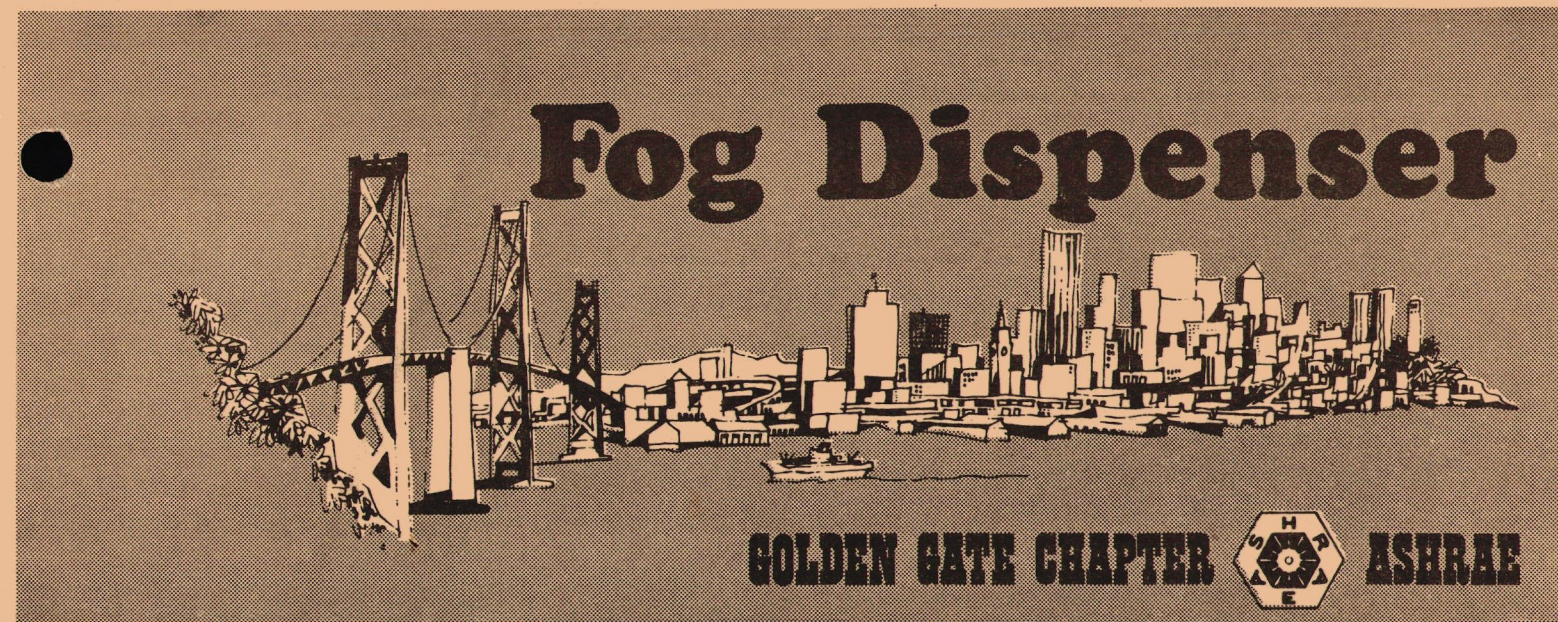
Cathy L. Ward, Honeywell

RAFFLE

If you miss the October meeting, you'll also miss a shot at winning tickets to the San Francisco 49ers/Philadelphia Eagles game (11/3) at Candlestick Park. If you can't be at the meeting, better send a trusted friend to "play your hand".

EMPLOYMENT OPPORTUNITIES

Consulting Mechanical Engineer: 5-10 years HVAC and plumbing experience for commercial and industrial applications required. Position in Honolulu. P.E. license and Engineering Degree required. Please



VOLUME XXV NO. 1

OCTOBER 1985

MEETING NOTICE

OCTOBER PROGRAM

DATE: OCTOBER 3, 1985

TIME: 5:30 - 6:30 PM SOCIAL HOUR
6:30 - DINNER/MEETING

LOCATION: Engineers' Club
160 Sansome St., 16th Floor
S.F., CA (415) 421-3184

IF YOUR PLANS CHANGE, PLEASE BE SURE TO CANCEL DINNER RESERVATION(S) BY CALLING THE ENGINEERS' CLUB BEFORE NOON OF THE MEETING DATE.

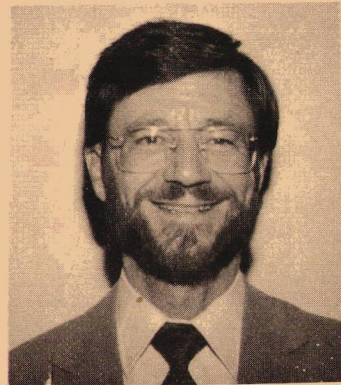
The season's first program will be entitled Supermarkets & Humidity: New Method of Dehumidification and will be presented by Mr. Atma Advani. Mr. Advani is Senior HVAC Mechanical Engineer with the Facilities Engineering Division of Safeway Stores.

HONOR ROLL

RMR Inc.
727 Industrial, Suite 5
San Carlos, CA 94070
(415) 591-2755

Robert M. Roach, Mfg. Rep. for Pottorff, Recold, Arrow United, Air Floor and Russell

PRESIDENT'S MESSAGE



the health and growth of ASHRAE. For the October meeting we will have the privilege of hosting a number of newly elected Life Members. Come and renew some old friendships. We look forward to seeing you October 3 for the kickoff meeting of the 85/86 ASHRAE year.

JUNE MEETING MINUTES

Attendance: 71 members, 40 guests

- 1. Meeting called to order by President Dowling and followed by introduction of members and guests. 2. Approval of April minutes, as posted in the May Fog Dispenser. 3. Annual Tennis tournament was to be held at the Harbor Bay Tennis Club at 1 pm on June 7th. 4. The Annual Golf tournament will be held on July 22nd, at the Crow Canyon Country Club, Dick Debrine is chairman of the event. This event is a fund raiser. 5. Discussed a tribute to Bob Phillips, who is retiring. 6. 1986 Winter meeting: Tom White, General Chairman reported on the Host Committee assignments. Winter meeting will have a Welcome Party on Sunday and a banquet. There will be an Oakland Museum tour, plus other notable excursions planned for members and guests. Tom gave us a history of the meetings before 1986. Tom Brewer will be the Honorary Chairman of the 1986 meeting. 7. Dart Rinefort reported that over \$10,000 was earned on the Seminar

Welcome back from what I hope has been a good, relaxing summer. I hope you've all enjoyed your vacation from work and from ASHRAE. Your Board, of course, has been planning for this year and we're looking forward to a good and productive one.

For sure it will be a busy one, especially with the '86 Semi-annual Meeting being held here in San Francisco. Our Chairman, Tom White, and his committee will be looking for your help so please be generous with your time.

There are three goals which I would like the Golden Gate Chapter to achieve this year. First, a growth of 45 new members. Second, an increase of activity at the committee level by the younger members. Third, increased donations to the Research Fund by local corporations. I think these goals are important to

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Board of Directors

- Kevin F. Dowling Gino Colacchia Tom Reinarts

UC BERKELEY EXT. COURSES ON HVAC-R

Two courses of interest to engineers in heating, ventilation, air conditioning and refrigeration will be presented in San Francisco by UC Berkeley Extension, beginning Sept. 23 and 25.

A 12-session course on the principles of temperature controls for HVAC systems is slated for Sept. 25 to Dec. 11. On completing it, participants should be able to specify and design control systems for normal applications. Enrollment is limited.

Air conditioning and heating psychrometry will be discussed in a 12-session course Sept. 23 to Dec. 9. It will aim at providing a working knowledge of the physical principles and methods of measurement needed in psychrometric processes. Emphasis will be on energy utilization, based on the latest energy codes and standards.

The temperature control course is an elective and the air conditioning and heating psychrometry course is a requirement in a four-course curriculum developed by UC Berkeley Extension and the Golden Gate Chapter of ASHRAE. A certificate of accomplishment is awarded by the Chapter when the curriculum is successfully completed. Either course may be taken independently, without reference to the certificate. Both courses will be held at St. Mary's Cathedral, Lower Level, 1111 Gough St. The fee for each course is \$185.

For complete details call (415) 642-4151 or write to UC Extension, 2223 Fulton St., Berkeley, CA 94720.

RESTAURANT SUGGESTIONS NEEDED

Since the Golden Gate Chapter will be hosting many out-of-towners during the '86 semi-annual meeting in January, we would like to have a good restaurant list available for these visitors. Please call Jim Holden at (415) 873-1166 with the

name of a good restaurant preferably near or in the downtown area that you have particularly enjoyed. Help us make this an enjoyable stay for our fellow members and their wives.

S.F. BLDG. CODE RULINGS UPDATE

San Francisco Code Ruling No. 75-10 deals with special inspection of life-safety systems for highrise office buildings. San Francisco Administrative Bulletin No. A-36 deals with the required status of life-safety systems in highrise buildings prior to Temporary Permits of Occupancy. Carl Jordan wrote to the City concerning the Code Ruling vis-a-vis the Administrative Bulletin and received the following response:

"In reference to your July 9, 1985 letter requesting the status of Code Ruling 75-10 and Administrative Bulletin A-36, please refer to the following:

"Code Ruling 75-10 has been incorporated into the 1984 SFBC in section 306 and therefore has been cancelled. Administrative Bulletin A-36 is in the process of being revised to reflect the requirements of Section 307 of the SFBC and also additional procedures made necessary by such ordinances as the Transit Impact Development Fee. Therefore A-36 is on hold until the Bulletin is revised. We expect to complete the revision of the procedure covered in A-36 by August 30, 1985. Please contact us at that time for availability of a copy of the updated bulletin." The letter was signed by Mr. Franklin Lew (Acting Superintendent, Bureau of Building Inspection, City & County of San Francisco).

EBB SEMINAR

The Environmental Balancing Bureau of Northern California is having a Seminar on Variable Air & Hydronic System Control Devices and Monitoring on October 8, 1985. For

JUNE MINUTES CONTINUED

program and that the Chapter donated \$9000 to ASHRAE Research (check presented to the Society at the May CRC). The Chapter had \$10,291 in assets, \$395 in liabilities and \$625 in the Cal Poly Workshop Fund.

8. Don Bryant handed certificates to graduates of the UC Extension program on HVAC, in which students must complete 120 hours of instruction before receiving the certificate.

9. Boris Rubinsky, instructor at UC Berkeley received the Berkeley campus Student Chapter certificate.

10. Certificates were issued to deserving members, as follows: Society Appreciation to President Dowling. Kevin Dowling received President's Certificate, presented to him by Jim Taylor.

- The following awards were given for committee activities:
- Ted Stalzer/Lucy Santos - Reception
 - Sheryl Almon - Raffle
 - Glenn Claycomb - Code
 - John Lewis - Audit
 - Lance Almon - Fog Dispenser
 - Rick Magarian - Honor Roll
 - Rich Leao - Membership
 - Barbara Dilts/Jim Holden - Research Promotion
 - Alan Moyal - Seminar
 - Gary Harbison - Education
 - Tom Judson - Roster

The incoming Board of Directors was introduced and the gavel was passed to Jim Nemechek.

11. The Raffle was conducted by Sheryl Almon, with wine donated by Western-Allied Corp. The winners were our Canadian guest, plus Dick Friedman and Bill Moore.

12. The guest speaker was Dan Mohn, the Chief Engineer of the Golden Gate Bridge District, who discussed the derivation of the Bridge District, the problems of maintenance on metals due to the salt content of the fog, detailed the repaving of the deck of the G.G. Bridge. The slides showing the construction process of re-decking the bridge was most

interesting and there was a very active question and answer session following the presentation.

13. Since the Chapter is a Calif. Corporation, new President Nemechek opened the business meeting for the corporation; no new business was presented. Moved by Taylor to close the meeting, seconded by Jordan, motion carried. Meeting adjourned.

Don Bryant, ASHRAE Fellow and driving force behind education in HVAC-R at UC Berkeley Extension, is currently recovering nicely (at home) from bypass surgery. The entire Chapter wishes Don a continued speedy recovery.

HVAC-R EDUCATION CERTIFICATES

The following people were awarded certificates of accomplishment by the Chapter for completion of UC Berkeley Extension's four course curriculum in HVAC-R.

- Triumfante Paguyo Augustin, Naval Air Station, Alameda
- Philip C. Basada, Takahashi Consulting Engineers, Inc.
- Stewart S. Cheang, U.S. Navy
- Francis N. Crisp, Western Allied Corporation
- Gus Giranis, Western Allied Corporation
- Richard J. McGraw, Chevron Research
- Robert J. McLaughlin, Sal Parker & Co.
- Derek Northall
- Reynaldo K. Reyes, CED, Inc.
- James L. Shih
- Gregory L. Sibley, Bentley Engineering Co.
- Kuppe G. Srinvas, Bentley Engineering Co.
- Carl S. Stempin, Staefa Control System

INSIDE SALES ENGINEER

Experienced person needed for inside sales engineering backup and application work. Contact Joe Schauf, Baltimore Aircoil Company, (408) 866-0723

INSIDE SALES APPLICATION ENGINEER

Person with experience in HVAC wanted. Contact Gerry Yaffe, Tempco Equipment Co., Inc., (415) 467-8680



VOLUME XXIV NO. 4

JANUARY 1985

MEETING NOTICE

DATE: JANUARY 3, 1985

TIME: 5:30 - 6:30 PM SOCIAL HOUR
6:30 - DINNER/MEETING

LOCATION: Engineers' Club
160 Sansome St., 16th Floor
S.F., CA (415) 421-3184

JANUARY PROGRAM

The author of SMACNA's publication on balancing, Dave Bevirt, will speak of "Air and Water Balancing". Dave is one of the most respected men in his field so I'm sure you will want to be there to hear him.

100+ VOLUNTEERS NEEDED FOR ASHRAE WINTER MEETING, JANUARY 1986

By now everyone should know that San Francisco is the site of the 1986 Society Winter meeting and product show (1/23 - 1/26). Tom White and his Committee Chairmen urgently need 100 volunteers for the committees during 1985 and during the meeting. If you sign-up to help you'll receive free registration for the show (\$50 value) and the satisfaction of constructive involvement with this big ASHRAE event.

To volunteer call:
964-4024 - Tom White

398-7667 - Dick Glumac or Kevin Dowling

873-1166 - Jim Holden.

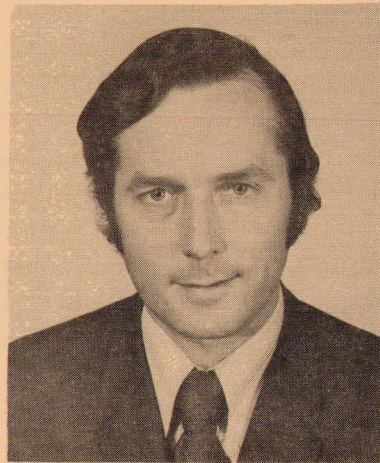
HONOR ROLL

MARLEY COOLING TOWER COMPANY
233 Post St., Suite 302
San Francisco, CA 94108
(415) 956-4964

Maria Keller
Tom Dreher

Ward Clark
Gary Harbison

PRESIDENT'S COLUMN



It's hard to believe 1984 is nearly behind us and our January 3rd meeting marks the start of a new year, which promises to be a very exciting one for the Golden Gate Chapter. There will be a lot of hard work to be done to organize the January 1986 semi-annual meeting in San Francisco and once again Tom White and his committee chairman have asked for about 100 volunteers to serve on the various committees. If you can help out for a few hours next year or at the show in 1986, please call Tom at 964-4024 before January 11th next year.

January 3rd is Membership Night and the Board asks that each of us try to bring a potential new member to the meeting. Jim Nemechek has organized an excellent program and we want to

take this opportunity to increase the Golden Gate Chapter Membership. Also, please encourage any members you know who do not attend the meetings regularly to make a special effort to attend this one.

Many of our members will be attending the Semi-Annual Meeting in Chicago on January 27th to 30th. If you want a taste of the Mid-West weather (so you can appreciate the rain in San Francisco when you return), there are some excellent programs organized and exhibits to be seen.

The Code Committee has been busy with Gus Degenkoub drafting a new chapter for the UBC on smoke control. Glenn Claycomb will have a full report for the next Fog Dispenser.

We hope to see you all at the January 3rd meeting with your friends and guests. Have a Merry Christmas and a Happy & Prosperous New Year!

Kevin Dowling, President

MINUTES OF LAST MEETING

Meeting presided over by Kevin Dowling, Chapter Pres.

Self-introductions were conducted as dinner was being concluded.

Minutes for the November meeting were approved without modification.

Tom Judson announced that Dec. 6 was

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Richmond, CA 94805

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(W) 415-467-8680

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James Nemechek..President-Elect
Dave Rifkin.....Secretary
Dart Rinefort.....Treasurer

Board of Directors

Jim Taylor
Sherman Brown
Gino Colacchia

MEETING DATE	DEADLINE
11/1/84	10/12/84
12/6/84	11/14/84
1/3/85	12/12/84
2/7/85	1/18/85
3/7/85	2/15/85
4/4/85	3/14/85
5/2/85	4/12/85
6/6/85	5/15/85

ANNOUNCEMENT

Joseph H. Schauf of Saratoga, CA has been elected to the Presidency of the Refrigerating Engineers and Technicians Association at their 75th Annual National Convention. Mr. Schauf is a Past President of San Jose's ASHRAE Chapter, #101.

CARL'S CODE RULING CORNER

The State Building Codes appear in California Administrative Code Title 24. Part 2 is General, Part 3 is Electrical, Part 4 is Mechanical and Part 5 is Plumbing. Through written complaints to the State Building Standards Commission, Carl Jordan has succeeded in convincing them to return to the looseleaf format when they republish Part 2 of the State Code. Recently, the documents have been fully bound and revisions were cumbersome. The looseleaf format will also return for Parts 3, 4 and 5 as each is republished. These changes are per a letter sent to Carl by John C. Worsley, FAIA, Executive Director, State Building Standards Commission.

Also, the San Francisco Bureau of Building Inspection has issued another code ruling as follows:

Code Ruling BC-503(d)-1 clarifies the intent of the Code to require 1-hour separations between A-3 and R-1 occupancies.

EMPLOYMENT OPPORTUNITIES

See next page.

the final, final final date for being included in the 1985 Roster and that Chapter dues had to be current in order to be included.

January will be membership night; each member is encouraged to bring a guest and a potential new Chapter member.

Tom White reported on 1986 Winter Meeting details, etc.

Glenn Claycomb spoke about the Code Committee working on new code changes for smoke control relative to the UBC. Bob Voelz reported on some pending changes for older buildings being remodeled, relative to code requirements.

Old business: Dick Charles reported that Society Energy Award for 1984 had three 2nd place winners from Region X. Steve Taylor is Energy Conservation Chair; projects that are worthy of consideration should be presented to Steve.

Raffle conducted by Sheryl Almon; Valerio won again along with other happy winners.

Speaker, Nigel Renton of Dealy-Renton Assoc., spoke on liability insurance for engineers. This very humorous gentleman discussed the approach to insuring the professional from the hazards of design errors, loss of income to a client-owner, how to resolve disputes through mediation, etc. Renton discussed the pros and cons of Arbitration and how it works. Also discussed were insurance after a professional leaves a firm, retires, or dissolves a partnership, or a take-over company continues the business.

TREASURER'S REPORT

Total Assets:	\$12,310.22
Total Liabilities:	\$ 395.00
Equity:	\$11,915.22

ENGINEER, MECHANICAL

Minimum 5 years experience in heating, air conditioning, plumbing and process piping design. Professional registration and U.S. Citizenship required. Send resume to:

Personnel Department
Kennedy/Jenks Engineers
657 Howard Street
San Francisco, CA 94105

MECHANICAL ESTIMATOR

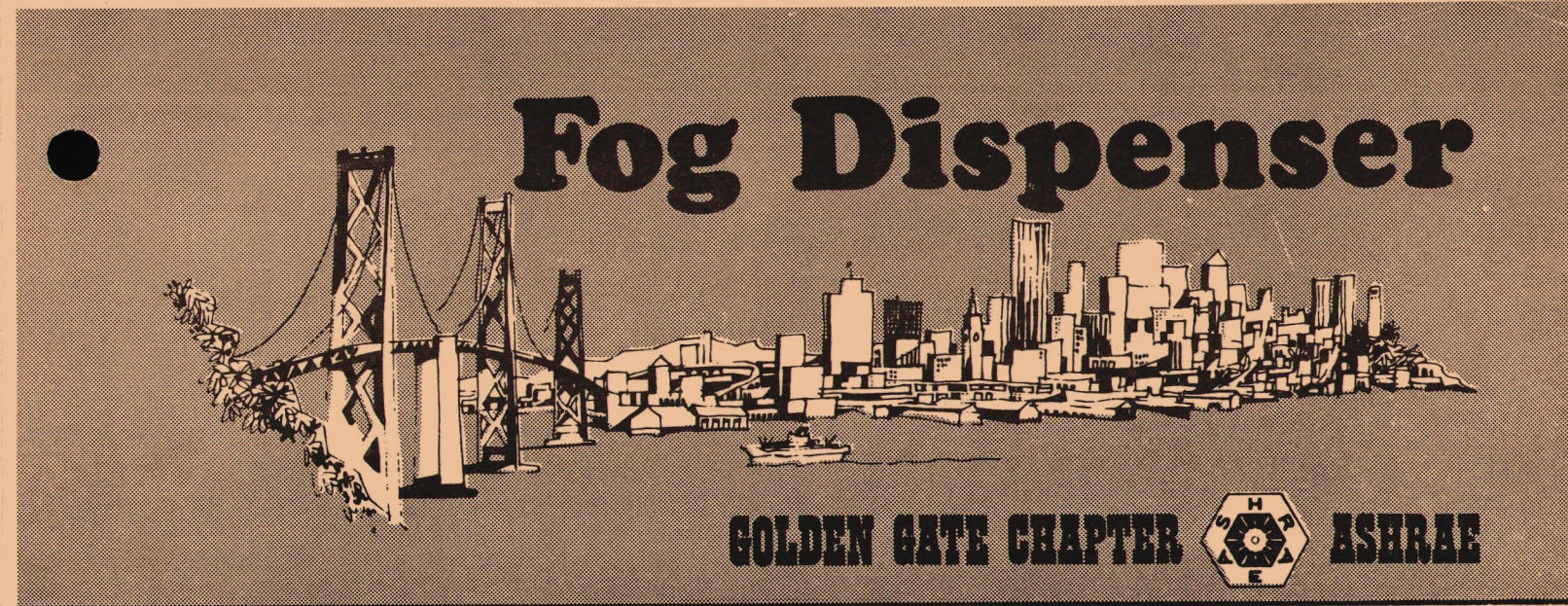
Experienced person needed to head Mechanical Department. HVAC duct and working knowledge of HVAC plumbing & fire protection required. Job entails some travel & field work. Office location is Walnut Creek. Contact Herb Gough at Lee Saylor about unique pay structure. (415) 933-6000, ext. 254.

INSIDE SALES ENGINEER


Experienced person needed for inside sales engineering backup and application work. Contact Joe Schauf, Baltimore Aircoil Company. (408) 866-0723.

INSIDE SALES APPLICATION ENGINEER

Person with experience in HVAC wanted. Contact Gerry Yaffe, Tempco Equipment Co., (415) 467-8608.



Fog Dispenser

GOLDEN GATE CHAPTER  **ASHRAE**

VOLUME XXIV NO. 5

FEBRUARY 1985

MEETING NOTICEFEBRUARY PROGRAM

DATE: FEBRUARY 7, 1985

TIME: 5:30 - 6:30 PM SOCIAL HOUR
6:30 - DINNER/MEETING

LOCATION: Engineers' Club
160 Sansome St., 16th Floor
S.F., CA (415) 421-3184

Water quality and water treatment are important topics for those of us in the HVAC business. Mr. Herman Franz of the Garratt-Callahan Co. will enlighten us on water treatment in HVAC applications in the Bay Area.

It will be an interesting and informative meeting.

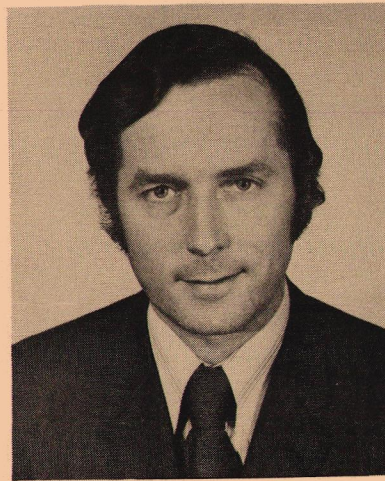
HONOR ROLL

CALIFORNIA HYDRONICS
350 HATCH DR.
FOSTER CITY, CA 94404
(415) 574-1313

Jack Palmer
Milt McLeod

Dave Attard
Jim Attard

PRESIDENT'S COLUMN



First, I would like to thank all members who invited a guest to our January meeting. I'm sure they were very impressed with the quality of the presentation by Dave Bevirt of SMACNA and hopefully we can encourage each of them to join ASHRAE.

At the risk of sounding like a parrot, I want to again emphasize the importance of sending in a reservation card or calling the Engineers' Club if you are coming to the monthly meeting and calling to cancel if you send in the card and then can't make it. There were approximately 15 people who were put on a wait list at the last meeting because they did not make a reservation. In addition, the Chapter has received an invoice for

\$315.00 from the Club for meal reservations that were made by people who then did not show up for one of the first two meetings.

Tom White has received a good response to his request for volunteers to help out at the 1986 Semi-Annual meeting in San Francisco, but he still needs alot more volunteers. If you can help out for a few hours please call Tom at 964-4024.

The seminar is all set for March 20th this year so be sure to mark your calendars. This is an excellent opportunity to update our knowledge of the San Francisco and State Codes.

Jim Nemechek has organized an excellent program on water treatment for the February meeting. Hope to see you there.

Kevin Dowling, President

MINUTES OF LAST MEETING

Attendance: 16 guests, 68 members

Meeting presided by Kevin Dowling, President of the Chapter. Self introductions by members and guests occurred during the serving of dinner. Kevin Dowling welcomed the guests and invited them to participate in the Chapter as new members.

MAIL OR PHONE NEWS TO:

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Dart Rinefort.....Treasurer

Board of Directors

Jim Taylor
Sherman Brown
Bino Colacchia

COPY DEADLINE

In order to meet publication dates the following deadlines are presented as the last possible dates for FOG DISPENSER copy to be in the editor's possession:

MEETING DATE	DEADLINE
2/7/85	1/18/85
3/7/85	2/15/85
4/4/85	3/14/85
5/2/85	4/12/85
6/6/85	5/15/85

JANUARY MINUTES. CONT.:

Minutes for the December meeting were approved by vote.

Alan Moval talked about the Seminar Committee presenting their program on March 20, 1985 at the PGandE auditorium covering construction code changes, Title 24, the new commercial standards and codes covering Atriums. This will be an all-day seminar.

The raffle was conducted by Shervi Almon: wines were donated by Frank Mayhew of the G.J. Yamas Co.. Winners were Dave Bevirt (the guest speaker), Hank Mouw, John Lewis and Ted Stalzer. Thanks to the G.J. Yamas Co. for their generous donation.

Jim Nemechek introduced the guest speaker, Dave Bevirt, SMACNA Technical Director and author of many papers on duct design, balancing and fan performance. Mr. Bevirt is also a member of ASHRAE and serves on many of the Technical Committees as well as being a major contributor to the Fundamentals Handbook section on Duct Design. His presentation covered fan curve interpretation related to Testing and Balancing. Testing and Balancing involves understanding system design, engineering, measurement and understanding system effect of air moving components. Bevirt also noted that the SMACNA DUCT DESIGN MANUAL has the latest information on duct elements and their respective loss coefficients. This new information supersedes the myths formerly used by many design engineers and there will be a new duct standard coming out in 1985 which will reclassify the pressures and sealing requirements.

Meeting adjourned at 9:30 pm.

Dave Rifkin, Secretary

TREASURER'S REPORT

Total Assets:	\$12,580.85
Total Liabilities:	\$ 395.00
Equity:	\$12,185.85

RAFFLE SPONSOR

Many thanks to The G. J. Yamas Co. and Mr. Frank Mayhew for providing the prizes for the January meeting's raffle. Any potential raffle sponsors are encouraged to contact Shervi Almon at 974-5881 to make arrangements.

ANNOUNCEMENT

The California Society of Professional Engineers (Peninsula Chapter) is presenting their first annual "Engineer's Symposium and Supplier's Showcase" on Wednesday, February 20th (5:00 PM - 10:00 PM) at the Dunfey San Mateo Hotel. Golden Gate Ballroom.

Dinner will be served for \$17.50 for reservations received before 2/10; later reservations will be \$20.00.

Please make checks payable to: CSPE Peninsula Chapter
c/o James R. Hinson, PE
SAFETY AND HEALTH CONSULTANTS
P.O. Box 4866
Foster City, CA 94404

Attendance Coordinator: Clarence Mobley, PE (415) 992-0324
Potential exhibitors should contact Jim Hinson at (415) 573-9655.

EMPLOYMENT OPPORTUNITIES

See next page.

requests that members who have completed Continuing Education courses provide him with the courses' title/description, the CEU credit value and a dated copy of their certificate of completion. Please send Gary this info. at: Marley Cooling Tower Co., 233 Post St., Suite 302, San Francisco, CA 94108.

PALO ALTO UTILITY OFFERS REBATES

The City of Palo Alto Utilities Department (under their PARTNERS program) is offering cash rebates of up to 50% of project cost for installation of "approved electric demand-reducing measures" by their commercial/industrial customers.

For more info., call their PARTNERS program at (415) 329-2439.

FLYERS INCLUDED WITH THIS ISSUE:

- Golden Gate ASHRAE Workshop
- Cal Poly student aid donation form.
- Golden Gate ASHRAE 1985 Seminar brochure (subject: Const. Codes).
- San Francisco Code Ruling information update compiled by Carl Jordan.

TENNIS TOURNAMENT

All of you tennis buffs should mark your calendars for the annual Golden Gate Chapter tournament. This time we move to the fine Harbor Bay Club on Friday, June 7th from 12:00 to 4:00 pm. Entry forms will go out with the May Fog Dispenser. Call Jack Kniveton at 777-5333 if you have any questions.

EMPLOYMENT OPPORTUNITIES

CITY OF PALO ALTO UTILITIES DEPT. POSITION AVAILABLE

ASSOCIATE ENGINEER: Under the Commercial/Industrial (C/I) Coordinator, the Associate Engineer will provide the main technical support for C/I programs including the PARTNERS Electric Incentives Program (a rebate program intended to reduce C/I customer peak demand).

The incumbent conducts energy field audits and seminars, reviews merits of new energy management products and services, analyzes customer requirements and advises on rebates and energy management opportunities, responds to technical inquiries from customers or staff. Additional activities may involve administrative, financial or planning functions of the Commercial/Industrial programs.

This is a full-time position through 1/86. For more information call Karl Johnson, C/I Coordinator, at (415) 329-2158 or Palo Alto's Personnel Department at (415) 329-2534.

Dynamic mechanical contractor has opportunities for:

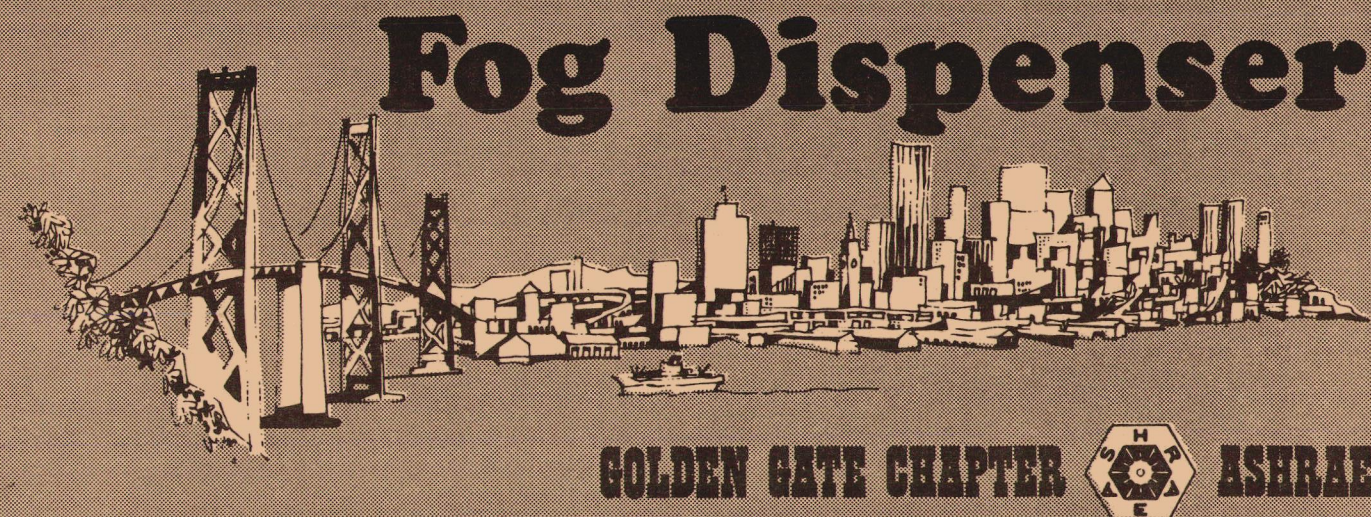
Estimator with five or more years in estimating and mechanical design with experience in process piping, plumbing & heating.

Project Manager with five years or more experience in the mechanical contracting industry. Total project responsibility for all phases of job coordination and close out.

Operations Manager with ten or more years experience in administrative, technical skills to manage and direct a department that includes purchasing, shop, fabrication and supervision of project management, labor & equipment.

Liberal benefits, compensation based upon responsibilities. Send resumes to:
J.W. McClenahan Co.
T.J. McClenahan, President
P.O. Box 1149
San Mateo, CA 94403

HVAC SALES ENGINEER: Work opportunity includes all aspects of design and construction. Call Gino at University Mechanical, 351-4060.



VOLUME XXIV NO. 6

MARCH 1985

MEETING NOTICE

MARCH PROGRAM

DATE: MARCH 7, 1985
TIME: 5:30 - 6:30 PM SOCIAL HOUR
* 6:00 - VIDEOTAPE
6:30 - DINNER/MEETING

LOCATION: Engineers' Club
160 Sansome St., 16th Floor
S.F., CA (415) 421-3184

IF YOUR PLANS CHANGE, PLEASE BE SURE TO CANCEL YOUR DINNER RESERVATION BY CALLING THE CLUB BY NOON OF THE MEETING DAY.

* VIDEOTAPE OF ASHRAE NATIONAL PRESIDENT ROBERT McDONALD ON "PROFESSIONAL EXCELLENCE: THE ASHRAE THEME OF 1985".

Our March meeting will feature a panel discussion on acoustical treatment of mechanical systems. The panel will consist of George Wilson (acoustical consulting engineer), Gino Colacchia (mechanical contractor), one consulting mechanical engineer and one owner's representative. It will be a lively, informative meeting... hope to see you all there.

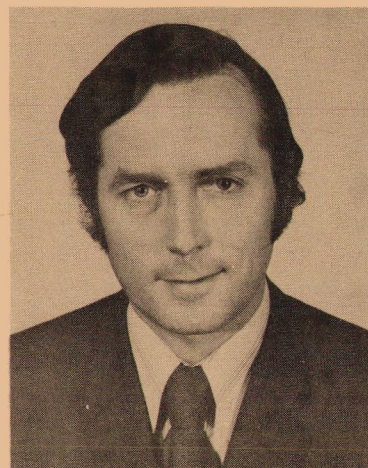
HONOR ROLL

BROSE COMPANY
85 OAK COURT
DANVILLE, CA 94526
(415) 820-7330

John Brose
Norm McLeod

Bob Brose
Dale Yager

PRESIDENT'S COLUMN



Chapter has received a bill for \$248.00 from the Engineers' Club. The Chapter does not have the funds to pay for those meals and the Board will be forced to increase the dinner's cost if we can't match the reservation cards with the attendees at the dinner. Please be sure to send in your reservation card or call the Club if you are coming AND if you make a reservation and can't attend, be sure to call the Club to cancel by noon of the meeting day.

The annual seminar is scheduled for March 20th and titled "1985 Construction Code Update". Be sure to mark your calendar and get your reservation in before March 13th to take advantage of the reduced enrollment fee. This is an excellent opportunity to get a thorough update of the San Francisco and State Building Codes.

ASHRAE Southern California Chapters are sponsoring a two day seminar and exposition (3/29 & 30 at the Sheraton Newport) on the uses of computers in the design and drafting of HVAC systems. We will have brochures at the March Chapter meeting and if you need more information call Mr. John Wise at (714) 788-6470.

Society is co-sponsoring a conference in Copenhagen, Denmark on August 25-30 with a post conference tour of Germany and Paris running through September 8th. More details will be included in future Fog Dispensers.

-- Continued --

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3/7/85	2/15/85
4/4/85	3/14/85
5/2/85	4/12/85
6/6/85	5/15/85

Our March meeting is student and faculty night when we invite the students from U.C. Berkeley and other local colleges to attend the meeting. This promises to be a very interesting and lively evening with a round table discussion on acoustics by a building owner, an acoustical engineer, a mechanical contractor and a mechanical engineer. The Board would like as many members as possible to sponsor a dinner for the students as this is a great opportunity for them to see how ASHRAE works and hopefully it will encourage some of them to enter the air conditioning industry.

Once again, the February meeting was a dinner reservations disaster. There were 25 people who sent reservation cards in and did not show up for the meeting; consequently the

Hope to see you at the March meeting; please be sure to get the dinner registration card sent in.

Kevin Dowling, President

RAFFLE SPONSOR

Much thanks to Glumac & Associates for contributing the prizes for February's Raffle.

MINUTES OF LAST MEETING

Attendance: 73 members, 12 guests

1. Meeting called to order by Kevin Dowling with self-introductions following.
2. Motion to approve January minutes accepted.
3. Alan Moyal announced the local seminar on construction codes; seminar to be held at PGandE's auditorium, 3/20/85.
4. Bay Area Engineers' Banquet will be held 2/21/85.
5. Fred Kohloss spoke about ASHRAE directors in Region X namely: Dick Charles and Bill Chapman.
6. Jim McDonald won an Energy Award at the ASHRAE Winter meeting.
7. Dick Charles announced the CRC meeting in Carefree, AZ on May 16-18, 1985.
8. Dick Charles has 25 Climatic Data books for sale at \$15.00 ea.; this is \$2.50 off the regular price.
9. The evening's speakers were Herman Franz, Jim Burns and Ed Marr from Garrett-Callahan speaking on water treatment. Mr. Franz (with 20 years experience in the water treatment field) spoke on chemical treatments for cooling towers & boilers and on the electrolytic action of materials in heat transfer equipment. Questions and answers followed the slide presentation.
10. The raffle had its usual excitement. Wine was donated by Glumac & Associates - winners were Tom White, Kevin Dowling and Bob Phillips.

NEWS & ANNOUNCEMENTS

ROSTER OMISSIONS: Because many members were not listed in the 1985 Roster, the Board has decided to print an addendum. If your name was not included please immediately send the following info. to the L.O. Schuelke Co., Inc., 1015 Terminal Way, San Carlos, 94070, Attn: Lucy: full name // home add. // home ph. # // spouse's name // firm's name // firm's add. // firm's ph. # // position held // note pref. mailing add.

The March 7th meeting will be our Student/Faculty night. Dinner & meeting invitations have been extended to UC Berkeley, San Francisco State and the City College of San Francisco. All parties interested in sponsoring the dinner of a student please contact Gary Harbison at 956-4964.

Gino Colacchia is now Vice President of Sales & Marketing for University Mechanical Engineers and Contractors.

Since joining the firm in 1973 his leadership has allowed University to become a major Bay Area mechanical contractor. Gino joined ASHRAE in 1964 and has served the Bay Area engineering committee since 1971. Congratulations and much success in 1985.

TREASURER'S REPORT

Total Assets:	\$ 12,632.49
Total Liabilities:	395.00
Equity:	12,237.49

PAOE points need to be compiled for our ASHRAE chapter so Education Committee Chairman Gary Harbison

-- Continued

NOMINATION COMMITTEE REPORT

On March 14, the Golden Gate Chapter nominating committee met at Oliver's Restaurant in South San Francisco to choose a proposed slate of Officers for 1985-86; the following list of candidates was selected:

President Elect	Dave Rifkin
Secretary	Dart Rinefort
Treasurer	Sherman Brown
Incoming Director	Tom Reinarts
Past President	Kevin Dowling

Existing President Elect, Jim Nemechek and Junior Board Member, Gino Colacchia will automatically advance to the positions of President and Senior Board Member per provisions of our Chapter By-Laws.

At our April Chapter meeting additional nominations will be taken from the floor.

This report is respectfully submitted by members of the nominating committee: Gene Valerio, Carl Jordan, Jack Palmer, Jim Holden (Chairman) and Kevin Dowling (exofficio member).

NEWS & ANNOUNCEMENTS

ROSTER: If you were omitted from the 84-85 Roster please send (ASAP) the info. listed below to Lucy Santos at the L.O. Schuelke Co., 1015 Terminal Way, San Carlos, CA 94070:

full name // spouse's name // home add. // home ph. # // firm's name // firm's add. // firm's ph. # // position held // note preferred add. for mailing

FLYERS INCLUDED WITH THIS ISSUE:

-- Golden Gate ASHRAE Workshop.
-- Sacramento ASHRAE Chapter's 1985 Seminar brochure.

ASHRAE Research Campaign

The yearly ASHRAE Research campaign has started. You should already have a letter encouraging your participation.

Last year our Chapter contributed a record amount to ASHRAE Research. A lot of that was contributed by the Chapter; the rest came from individuals and companies. This year we'd like to contribute even more.

So remember how much this vital research has benefited our profession. Remember INFLATION! Write a generous check to "ASHRAE Research" and mail it to:

ASHRAE
370 Brannan St.
San Francisco, CA 94107
DO IT NOW!

NEW PG&E REBATE PROGRAM: April 1, 1985 is the first day of PG&E's New Construction Rebate Program. Any new non-residential construction project with electric service from PG&E qualifies. The program has three components: 1. Early compliance with the new California Energy Standards for office buildings (Rebate: up to \$50,000 per project); 2. Energy efficient lighting for non-office buildings (Rebate: up to \$50,000 per project); 3. Thermal Energy Storage for both new and existing non-residential buildings (Rebate: up to \$150,000 per project). For more information call your local PG&E Energy Management Incentives Coordinator or Barbara Dilts (972-4945).

APEM WORKSHOP ON FINANCING

The South Bay Chapter of the Association of Professional Energy Managers will sponsor two morning workshops entitled "Focus on Financing" at the Palo Alto Cultural Center, 1305 Middlefield Road, Palo Alto. All ASHRAE members are invited. The workshops will be led by Wally McDuat, energy financial analyst and President of McDuat and Associates together with Jose Alvarez of BankAmerica Corporation.

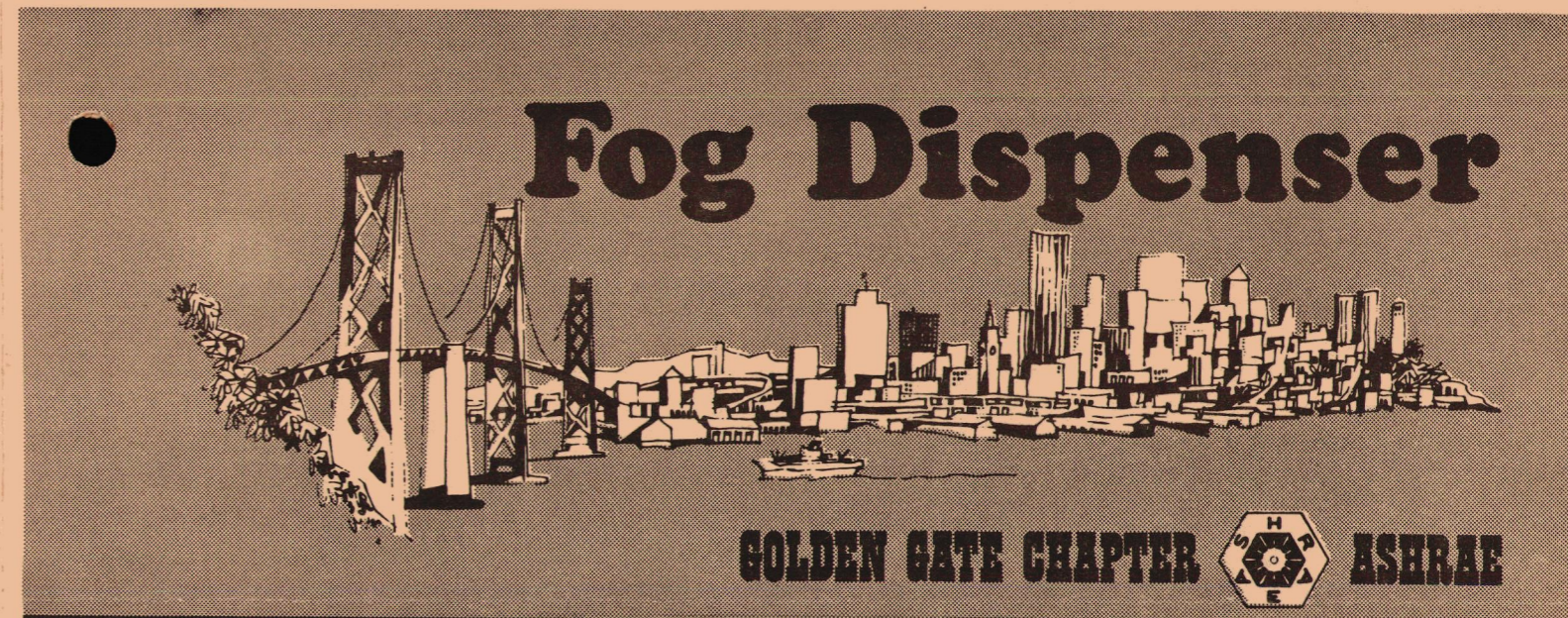
Session I (4/18) will cover "Fundamentals of Financing" including internal rate of return, discounting, forecasting, relative inflation rates and economics vs. financing and will include a problem solving session.

Session II (4/25) will discuss "Putting Together the Complete Financial Package" including long-term investment strategies, alternative financing methods, management presentations, return investment criteria, dealing with cost overruns, meeting goals and determining success.
Fees: One Session: \$50; Both: \$85

Space is limited. To register call Karl Johnson or Virginia Dupree at (415) 329-2439 or mail a check payable to APEM to: City of Palo Alto, P.O. Box 10250, Palo Alto, CA 94303, c/o Virginia Dupree, Utility Energy Services Program.

POSITION AVAILABLE

INSIDE SALES APPLICATION ENGINEER: Person with experience in HVAC wanted. Contact Gerry Yaffe, Tempco Equipment Co., (414) 467-8680.



VOLUME XXIV NO. 7

APRIL 1985

MEETING NOTICE

APRIL PROGRAM

DATE: APRIL 4, 1985
TIME: 5:30 - 6:30 PM SOCIAL HOUR
6:30 - DINNER/MEETING

LOCATION: Engineers' Club
160 Sansome St., 16th Floor
S.F., CA (415) 421-3184

IF YOUR PLANS CHANGE, PLEASE BE SURE
TO CANCEL YOUR DINNER RESERVATION BY
CALLING THE CLUB.

The April meeting will feature a presentation on the Economy of Ice Storage Systems by Mr. Angelo Datis, President of Process Products, Inc., Carson, CA. Also, there will be an introduction to PGandE's new rebate program. It should be an informative and chilling program so we hope to see you there.

HONOR ROLL

MONTGOMERY & ROBERTS, CONSULTING ENGINEERS
925 KEARNEY STREET
EL CERRITO, CA 94530
(415) 524-1477

Bob Montgomery
Rod Roberts
Bob Judd
Rich Wells
Bob Roos

Bruce Montgomery
Olivia Rocha
James McLean
Lorraine Montgomery

PRESIDENT'S COLUMN



If you haven't sent in a donation to Jim Holden or Barbara Dilts for ASHRAE Research yet, please try to help so the Chapter can reach its goal for this year. This is tax deductible and the funds are used for research that ultimately finds its way into ASHRAE Standards and the Guide and Data Book.

Our meeting topic for April will be on ice storage with an introduction to PG&E's new rebate program which will help finance, amongst other things, thermal storage systems. This could be a very worthwhile investment for building owners and some of your clients.

The CRC is just around the corner and so it is important to generate our quota of points for the Presidential Award of Excellence. If you've attended any of the Professional Development Seminars or served on ASHRAE advisory committees to government bodies, be sure to let me know so we can get credited for the PAOE points.

The Chapter has had a net loss of 9 members this year. If you have a potential member or you brought a guest to one of the dinner meetings, try to encourage them to join the Chapter as it would be well worthwhile.

Kevin Dowling, President

Our March meeting was well attended with a very interesting discussion on acoustics. Seems like the membership enjoys a round table discussion once in a while.

The Golden Gate Chapter plans to have a desk at the annual meeting in Hawaii to advertise the January meeting in San Francisco. If you are planning on attending the Honolulu meeting and could spare an hour or two, please contact Tom White or Jim Holden as they need some assistance in manning the table.

For all you tennis and golf enthusiasts, mark your calendar for June 7th for the Tennis tournament and July 22nd for the Golf tournament. Both events should be a lot of fun and a great opportunity to get know some of our members better.

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Richmond, CA 94805

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1984-85 Officers

Kevin F. Dowling.....President
James Nemechek..President-Elect
Dave Rifkin.....Secretary
Dart Rinefort.....Treasurer

Board of Directors

Jim Taylor
Sherman Brown
Gino Colacchia

COPY DEADLINE

In order to meet publication dates the following deadlines are presented as the last possible dates for FOG DISPENSER copy to be in the editor's possession:

MEETING DATE DEADLINE

4/4/85 3/14/85
5/2/85 4/12/85
6/6/85 5/15/85

MINUTES OF LAST MEETING

Attendance: 82 members, 30 guests

President Dowling opened the meeting by initiating self-introductions.

Minutes for the February meeting were approved.

Dowling announced: So. Cal. ASHRAE were having a computer seminar on March 29 and 30 and local Chapter seminar to be held on March 20 at the PG&E Auditorium, S.F.

Barbara Dilts of PG&E announced a new rebate program for energy conservation; ask her about details if interested.

Raffle conducted by Sheryl Almon, gifts were donated by the Edward B. Ward Co.; winners were Jim Taylor, Gary Harbison and Alice Meyer.

Meeting was a panel discussion on acoustical considerations relating to VAC systems and buildings. Dr. George Wilson presented fundamentals of sound power and sound pressure; discussed equipment fundamentals, NC levels, Sones, PWL, SPL (function of distance from sound source). Sones are a measurement in a simple numerical value for linear scale of loudness. Discussed architectural and mechanical elements that profoundly affect the sound level in the occupied space. Discussed duct velocities, branch velocities, STL of acoustical ceilings (tiles) is very low and not helpful for reducing duct noises. Dr. Wilson showed techniques in installing roof mounted equipment for lightweight structures--using more concrete and insulation will be necessary to provide acceptable sound levels.

Gino Colacchia presented the Contractor's point of view (his own) discussing plan and spec. vs. design and construct and the importance of utilizing the services of an

acoustical consultant and keeping him as a vital member of the design team.

Dick Charles presented the consulting engineer's viewpoint and fostered the use of the acoustical engineer to offset the problems that may occur from mechanical and architectural elements. Proper integration of the building components insures an acceptable end result. Specify NC numbers for the various spaces, as they are measurable in the field.

Jim Santiago of Lincoln Property Co., presented the owner-developer's point of view of acoustical treatment and the benefits of obtaining the services of an acoustical engineer on the design professional team.

Question and answer period followed the speakers. The meeting was very provocative and brought out some interesting problems that were introduced during the Q and A part.

Meeting adjourned at 9:40 PM.

TREASURER'S REPORT

Total Assets: \$ 14,008.28
Total Liabilities: 395.00
Equity: 13,613.28

RAFFLE SPONSOR

Thanks much to E.B. Ward and Co. (through Richard Frenzel) for providing the Scholarship Raffle prizes for the March meeting.

Sponsor opportunities still exist for the May and June meetings. Please contact Sheryl Almon at 974-5881 for details of supporting the raffle.

RAFFLE SPONSOR

The April meeting's prizes were provided by Pacific Gas and Electric Co. (through Sheryl Almon).

ASHRAE Research Campaign

This is just a reminder about the Campaign. If you have been putting off your donation to ASHRAE Research, please take the time now to write a generous check to "ASHRAE Research" and mail it to:

ASHRAE
370 Brannan St.
San Francisco, CA 94107

PG&E REBATE PROGRAM

April 1 was the first day of PG&E's New Construction Rebate Program. A brief description of this program is printed in this issue's meeting minutes. For detailed information call your local PG&E Energy Management Incentives Coordinator or Barbara Dilts (972-4945).

TENNIS TOURNAMENT

Date: June 7, 1985
Time: 12:00 TO 4:00 PM
Place: Harbor Bay Club, Alameda, CA
-- Entry form with details included with this issue.

GOLF TOURNAMENT

The Golden Gate ASHRAE Annual Golf Tournament is coming up; set aside July 22 for this outing. The format will be 4 man scramble with prizes for closest to the hole on par 3 holes, longest drive and fewest putts for the team.

Think about which one of your clients you want to bring along. We

would like to make this an industry-wide fun session. All proceeds will go to our Scholarship Fund.

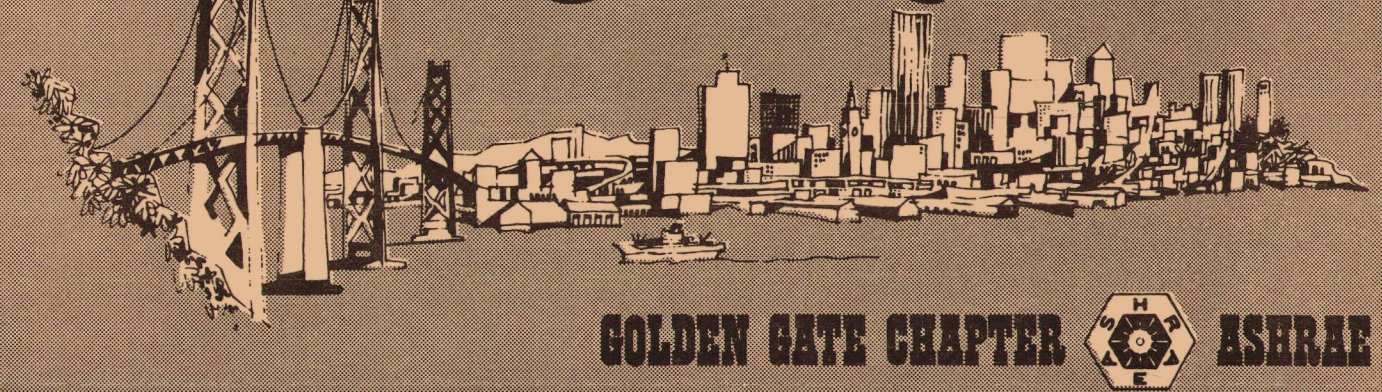
NEBB VARIABLE VOLUME SEMINAR

The Environmental Balancing Bureau of Northern California (a Chapter of National Environmental Balancing Bureau) will present a Seminar titled "Variable Volume Air and Water Systems" on October 8, 1985. There will be a flier letter sent out for registration.

EMPLOYMENT OPPORTUNITY

Position: Trades & Crafts Supervisor (currently vacant).
Salary: \$2823 - \$3626 / mo. depending on years of experience.
Responsibilities: Plan & direct Undergraduate Student Housing Maintenance Shop. Supervisor uses communication skills heavily.
Qualifications: Technical understanding & knowledge of buildings, equipment and maintenance. Supervisory experience. Management experience: accounting, personnel administration, inventory control, union contract administration, writing skills, payroll and interpersonal and customer service communication skills. Experience with a computerized maintenance management system helpful. Familiar with safety procedures applicable to housing facilities.
To apply: Submit resume and cover letter highlighting qualifications to: Jose Becerra #27637-VA, Stanford University Personnel Office, Old Pavilion, Stanford, CA 94305. Stanford University encourages applications from a broad spectrum of people including women, disabled individuals and ethnic minorities.

Fog Dispenser



GOLDEN GATE CHAPTER  **ASHRAE**

VOLUME XXIV NO. 8

MAY 1985

MEETING NOTICE

DATE: MAY 2, 1985
TIME: 6:00 PM - Tour of 101 California St. Building.

LOCATION: Lobby of 101 California St., San Francisco, CA.

MAY PROGRAM

May is our annual field trip which has always been an interesting outing and change from our normal meeting format. On May 2 at 6 o'clock, we will tour the 101 California Building which has a unique mechanical system for San Francisco. Our hosts will be the Emde Company, who installed the system.

Following the tour, we will go to La Fuente restaurant in Embarcadero #2, S.F. for a no-host dinner.

For the tour, we'll meet at 6 PM in the 101 California St. lobby. It should be a fun and interesting evening.

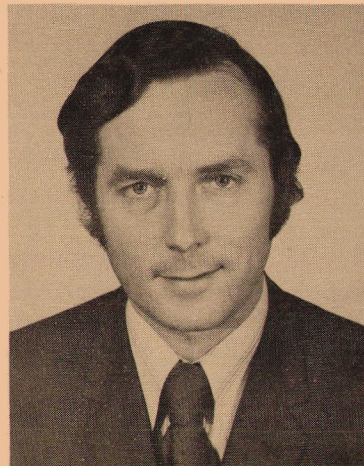
HONOR ROLL

PACO PUMPS
845-92ND AVE.
OAKLAND, CA 94604
(415) 639-3200

Frank Duarte
Mike Reichlin

Dave Decker
Pete Crivelli

PRESIDENT'S COLUMN



The 1985 CRC meeting is just around the corner in Carefree, Arizona on May 15, 16 and 17. Jim Nemechek and Dave Rifkin are our Chapter delegates to the meeting and if anyone has any input in the form of resolutions or changes to the by-laws, please contact Jim or Dave before the next Board meeting in May. Anyone going to the meeting should let them know so the Chapter is credited for the Presidential Award of Excellence. This promises to be an excellent meeting.

Next month's Chapter meeting is the annual Field Trip which will be a tour of the 101 California Street Building. There will not be a meeting at the Engineers' Club that night. Hope to see you all at 101 California Street.

Kevin Dowling, President

MINUTES OF LAST MEETING

Attendance: 75 members, 26 guests

Kevin Dowling called the meeting to order and asked for self introductions by members and guests. Usual humor prevailed.

Moved and seconded, voted to approve the minutes of the March meeting as published in the Fog Dispenser.

Dick DeBrine, golf tournament chairman, announced the July 22nd Chapter event to be held at Crow

Canyon Country Club, including shotgun start for the golfers, he is requesting companies to take their preferred clients, make up foursomes, provide prizes and other give-aways; more news forthcoming along with sign-up forms. Last year's event was very well attended, as well as having a super dinner in a lovely place.

Kevin Dowling announced that Fred Jacob, Bentley Engineers, received the Willis Carrier Award for his technical research paper. Congratulations to Fred.

Dart Rinefort announced the Seminar was a huge success, as 130 people attended, income was \$15,500 with expenses of \$4800. The committee consisting of Fred Brunk, Alan Moyal, Dart Rinefort (and assisted by Alice Meyer, Lucy Santos, Sherman Brown and forgive me if anyone else is forgotten) all deserve the Chapter's thanks and appreciation.

Jim Nemechek announced that the May field trip will be to the 101 California Building. This should be of interest to all since it is different from the usual types of design in the Bay Area. (Look for details of tour time & date and post-tour dinner plans in this Fog Dispenser).

Jim Holden announced that the Chapter will have a desk at the Hawaii meeting in June. This is provided to answer questions regarding the Winter meeting coming to San Francisco in January. If you are planning to attend in Hawaii, drop by the desk and say Hello to Jim, he may put you to work at the desk.

Jim Holden announced the slate of Officers for the 1985-86 year, as were listed in the April issue of the Fog Dispenser. He asked for additional candidates for the offices, none were offered. Tom Gilbertson moved nominations be closed; the membership voted to accept the slate as per the committee recommendation.

David Laybourn, PGandE representative, spoke about

incentives to keep peak demand down for new non-residential buildings, namely, \$50K for lighting systems, \$150K for thermal storage cooling systems and \$50K for early compliance with the Cal Title 24 standards (new standards for 1986). If anyone wants further information they can contact Mr. Laybourn at Pacific Gas and Electric Co.

He (David Laybourn) further announced the Energy Expo in Oakland, May 24, and the seminar on Thermal Storage.

Raffle conducted by Sheryl Almon; outstanding wine donated by Pacific Gas and Electric Co. Winners were Henry Mouw, Jim Nemechek and Don Bryant.

Speaker: Angelo Datis of Process Products, Inc. spoke on the subject of Thermal Storage systems and specifically about Ice Builders vs. Ice Harvester Systems. He discussed the fundamentals of an ice storage unit and improving the thermal efficiency and illustrated the problems with storage units. He explained the differences between the Ice Builder and Ice Harvester by "change of approach on the low side" and the benefits of using the Harvester unit for energy efficiency. He specified that each job should be evaluated to determine if the storage concept is suitable and energy efficient, with specific reference to time of the day billing by the utility company.

Meeting was adjourned following the question and answer period.

TREASURER'S REPORT

Total Assets: \$ 27,419.51
Total Liabilities: 395.00
Equity: 27,024.51

The April meeting topic was on ice storage systems which was very appropriate in view of the new rebate program offered by PG&E for the installation of one of these systems in a new or existing non-residential building. PG&E will be conducting seminars on Thermal Storage Systems and the new Title 24 Energy Regulations and rebate programs on April 30th in San Francisco.

The seminar was a great success with over 130 attendees and it raised approximately \$10,800, most of which will go towards ASHRAE research. On behalf of the Board I would like to thank Alan Moyal and Don Bryant and their committee members who worked tirelessly over a long period of time to make it so successful. They did a great job.

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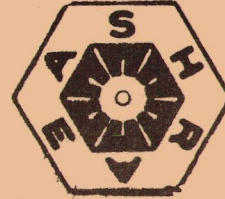
Board of Directors

Jim Taylor
Sherman Brown
Gino Colacchia

GOLDEN GATE CHAPTER

A.S.H.R.A.E. CELEBRITY GOLF TOURNAMENT

WHEN: MONDAY, JULY 22, 1985
WHERE: CROW CANYON GOLF CLUB
711 SILVER LAKE DRIVE
SAN RAMON, CA
PHONE: 820-3500
WHO: ALL THE BIG NAMES IN THE BAY AREA H.V.A.C. AND PLUMBING INDUSTRY
TIME: SHOTGUN START AT 12 NOON
LUNCH 11 A.M.
NO HOST COCKTAIL HOUR 5-6 P.M.
AWARD BANQUET 6:00 P.M.
COST: \$75.00 PER PERSON, WHICH INCLUDES LUNCH, GREENS FEES, CART,
ON COURSE REFRESHMENTS, BANQUET, PRIZES. \$25 for Dinner Only




PRIZES CONSIST OF THE FOLLOWING:

1. TEE PRIZE
2. LOW NET SCRAMBLE FOURSOME
3. LOW GROSS SCRAMBLE FOURSOME
4. FEWEST PUTTS FOURSOME
5. LONGEST DRIVE INDIVIDUAL
6. CLOSEST TO HOLE INDIVIDUAL
7. HOLE IN ONE INDIVIDUAL

SIGN UP NOW AS THIS VERY POPULAR TOURNAMENT HAS TO BE LIMITED TO 28 FOURSOMES.



Fog Dispenser

GOLDEN GATE CHAPTER  ASHRAE

VOLUME XXIV NO. 9

JUNE 1985

MEETING NOTICE

JUNE PROGRAM

DATE: JUNE 6, 1985
TIME: 5:30 - 6:30 PM SOCIAL HOUR
6:30 - DINNER/MEETING

LOCATION: Engineers' Club
160 Sansome St., 16th Floor
S.F., CA (415) 421-3184

IF YOUR PLANS CHANGE, PLEASE BE SURE
TO CANCEL YOUR DINNER RESERVATION BY
CALLING THE CLUB BY NOON OF THE
MEETING DAY.

The June meeting is our traditional Past Presidents' night and the night we install the new Officers. It's also our Ladies Night so bring your wife or lady friend. They'll be most welcome.

For this final program of the year, we will have as our guest speaker Mr. Dan Mohn, the Chief Engineer of the Golden Gate Bridge District. He will be giving us an entertaining show and talk on how they have rebuilt the deck of the Golden Gate Bridge. We hope you and your guests will attend.

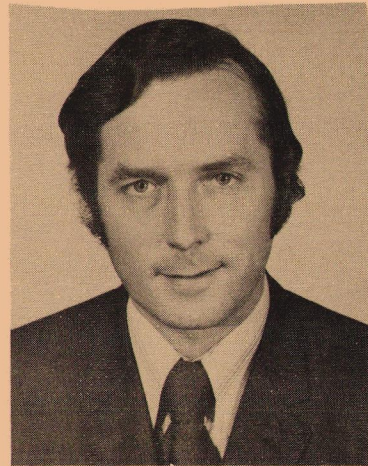
HONOR ROLL

Carrier Corporation
7755 Pardee Lane, Suite 6
Oakland, CA 94623
415-430-0434

Thomas C. Kohl
Phil Williams

Jeff Kerl
Ken Porter

PRESIDENT'S COLUMN



The Golf & Tennis Tournaments are quickly approaching so be sure to get your entry forms in as quickly as possible to Dick DeBrine and Jack Kniveton. These tournaments offer an excellent opportunity to get away from the telephone for an afternoon.

Bob Phillips who served as President in 1981-82 is retiring from the air conditioning business in June and on behalf of the Board I would like to thank Bob for his long years of service to ASHRAE and wish him the best in his new endeavors.

I've enjoyed the past year and all the pleasant people I've been associated with through ASHRAE and it was an honor to serve as President. I'd like to take this opportunity to thank all of you for your help and support and in particular those of you who served on the committees and the chairmen who worked so hard to make it a successful year for ASHRAE.

Kevin Dowling, President

The June meeting is our Honors & Awards and Past President's night when we conduct the annual corporate meeting and, with the installation of the new board, my term as President comes to a close.

Our Past Presidents and their spouses will be guests of the Chapter at the meeting and Jim Nemechek has arranged a fine program on the Golden Gate Bridge so bring your wife, husband or friend for what promises to be an enjoyable evening.

The Engineers' Club, where we conduct our meetings, is attempting to attract 200 new members from the engineering and other professions. Please contact the club if you or any of your associates are interested in joining.

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Kevin F. Dowling.....President James Nemechek..President-Elect Dave Rifkin.....Secretary Dart Rinefort.....Treasurer

Board of Directors

Jim Taylor Sherman Brown Gino Colacchia

TREASURER'S REPORT

Dart Rinefort will deliver the current status of the treasury at the June meeting.

ELECTION REPORT

All nominees, as listed on the ballot, were unanimously elected.

TOUR REPORT

May's field trip was a tour of 101 California St. conducted by the building's mechanical contractor, the Emde Co. The building's mechanical system design was by I.A. Naman & Associates, Inc. of Houston. Naman was represented by Mr. Jack B. Buckley who gave a slide presentation covering the building's design features. The April, 1985 issue of the ASHRAE Journal includes an article by Mr. Buckley which describes a highrise project in Miami that has similar design features.

HVAC COURSES - FALL 1985

The University Extension, University of California, will offer the following courses this fall at the U.C. Extension Center, 55 Laguna Street, San Francisco:

Air Conditioning and Heating Psychrometry X469 (2 semester units in Mechanical Engineering): This is the first course in the HVAC&R series. This course will be held on Monday evenings, September 23 to December 9, 1985, from 7:00-9:30 p.m., D.C. Bryant, instructor.

HVAC COURSES - cont

Temperature Controls for Heating and Air Conditioning Systems X473 (2 semester units in Mechanical Engineering): The course will be held on Wednesday evenings, September 25 to December 11, 1985, from 7:00-9:30 p.m., Frank W. Mayhew, instructor. Enrollment is limited.

For more information about these courses phone either Continuing Education in Engineering (415) 642-4151 or D.C. Bryant, Curriculum Coordinator (415) 584-0765. For information on how to enroll, phone U.C. Extension (415) 642-4111.

ASHRAE RESEARCH CONTRIBUTORS

All the individuals and companies that contributed to ASHRAE Research during the past campaign are listed on a separate sheet included with this Fog Dispenser.

GOLF TOURNAMENT

Included with this issue is an information flier/entry form for the annual Golden Gate Chapter ASHRAE Celebrity Golf Tournament.

INVENTORS HALL OF FAME

If you know of anyone deserving of nomination to the California Inventors Hall of Fame, please write to this group at P.O. Box 27291, San Francisco, CA 94127-0291.