

ASHRAE GOLDEN GATE CHAPTER 1988-1989

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Barbara Dilts	Treasurer	972-2277

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Steve Taylor	834-2430
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Reception	Dennis Thompson	468-5700	S. Taylor
Research Promo.	Bob Hooker	861-8400	F. Crisp
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SF Admin. Code	Carl Jordan	981-1555	T. Reinarts
Scholarship	Dan Reiter	232-1541	D. Rinefort
Tennis	Rich Leao	777-5333	B. Dilts
Publicity	Eric Johnson	467-8680	S. Brown
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"R" in ASHRAE	Lewis Brooks	692-5405	S. Brown



VOLUME XXVIII No. 1

OCTOBER 1988

MEETING NOTICE

DATE: Thursday October 6, 1988
SOCIAL HOUR: 5:30 P.M.
DINNER: 6:30 P.M.
LOCATION: ENGINEERS CLUB
 160 Sansome Street
 San Francisco, CA

NOTE: Reservation cards must be received no later than Tuesday Oct. 4th. If your plans change, please call the Engineers Club (415) 421-3184 or Gino Colacchia at Kalman Mechanical Inc. (415) 524-8094, no later than noon of the meeting date. Our chapter must pay if you do not show up for dinner, so please call. We can't guarantee your meal without a reservation.

HONOR ROLL

FAX: (415) 361-8403

AIR FILTER
 CONTROL INC.

PHONE: (415) 367-8310

THANK YOU FELLOW ASHRAE MEMBERS

FOR YOUR CONTINUED SUPPORT AND FRIENDSHIP

ROBERT E. SWEZEY

- ASHRAE Member since 1963
- Past President, San Jose Chapter
- Member, San Jose and Golden Gate Chapters
- Tennis Director Extraordinaire

EUGENE L. VALERIO

- ASHRAE Member since 1957
- Past President, Golden Gate Chapter
- Past Member, Region X Nominating Committee
- Member, Technical Committee 2.4 (Filters)
- Member, Standards Project Committees 52-76R (Filters) and 41.2 (Air Flow Measurement)
- Member, Golden Gate, Sacramento Valley, and Northern Nevada Chapters

JAMES G. NEMECHEK

- ASHRAE Member since 1970
- Past President, Golden Gate Chapter
- Member, Golden Gate and San Jose Chapters

JACK E. HIATT

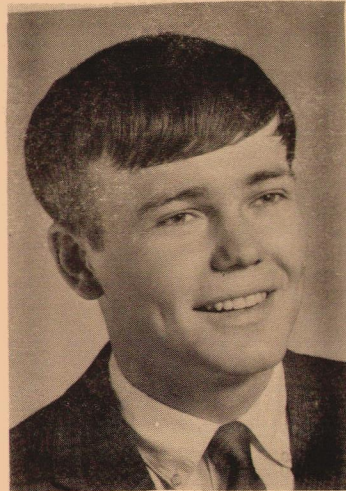
- ASHRAE Member since 1965
- Member, San Jose Chapter

MATTHEW R. GOFF

- ASHRAE Member since 1981
- Member, San Jose and Golden Gate Chapters
- Chairman, 1987 Golden Gate Chapter Technical Development Seminar

AIR FILTRATION AND CONTAMINATION CONTROL EQUIPMENT

PRESIDENT'S MESSAGE



I look back to when I first joined ASHRAE 16 years ago - and thank ASHRAE and it's people for my present position. The friends I have gained and the accomplishments we share bring me a warm feeling. I encourage all the younger members of ASHRAE to stay active and look to the future. With the increased ASHRAE research budget, this promises to be a very exciting profession.

The Board members have been very busy this summer. We have held our regular monthly meetings to prepare for the upcoming year. Scholarships and an additional student chapter are our primary goals. Dan Reiter has followed Bruce Montgomery's lead into Scholarship Chairman. We look forward to Dan's active leadership in a very important committee.

Steve Taylor is our newest Board member. He is quickly learning about Chapter operations and the work required by all of us. Welcome, Steve.

Marie Hoch is our new Fog Dispenser Editor. She is very enthusiastic and hard working. I am thankful she accepted the responsibility with such vigor. Let's all try and make her job easier by getting material to her on time.

Eric Tingloff will be greeting our members at the raffle table at each meeting. The Eric and Eric Johnson team should produce a fine team effort for Golden Gate.

Tom White, HISTORIAN, was present at our September Board meeting. He reviewed the discrepancies between the Golden Gate Chapter bylaws and Society bylaws. We as a chapter must decide to change our bylaws to conform to the society or "suffer" the consequences. All current members should comment to the current Board members.

Let's make this the best year ever for the Golden Gate ASHRAE. See you at the meeting!

Sherman Brown, President

1988-1989 MEETING DATES & TOPICS

- 10/6/88 "Forensic Engineering", How to avoid the quicksand of smoke control. Mike Dillon, P.E.
- 11/3/88 "Opportunities, Advantages & Problems", 37 year retrospective of our industry by Dick Friedman, P.E., Fellow.
- 12/1/88 "Basic Refrigeration Design", Mr. Lewis Brooks, P.E., and John Hogan, will develop a sample design of a typical 100 ton reciprocal refrigeration system.
- 1/5/89 "Tom Simonson - Engineers Nite"
- 2/2/89 "Thermal Comfort of Office Buildings", Gail Schiller, Assistant Professor, Bldg. Science with U.C. Berkeley, will review case studies of thermal comfort in Bay Area office buildings.
- 3/2/89 Open
- 4/6/89 Open
- 5/4/89 Field Trip
- 6/1/89 Special Program for spouse nite.

KNOW A PROSPECTIVE NEW MEMBER?

Contact Membership Chairman:
Dan Vasquez - 408/288-9551

Mail or Phone News to:
Marie Hoch, Editor
FOG DISPENSER
Air Filter Sales & Service
20671 Corsair Boulevard
Hayward, CA 94545
(415) 785-4800
FAX (415) 785-4804

COPY DEADLINE

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January 5, 1989	December 16, 1988
February 2, 1989	January 17, 1989
March 2, 1989	February 16, 1989
April 6, 1989	March 22, 1989
May 4, 1989	April 19, 1989
June 1, 1989	May 17, 1989

Published Monthly, October through June, by the Golden Gate Chapter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, c/o Duplicating Associates, 370 Brannan Street, San Francisco, CA 94107—Phone 495-4552
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Barbara Dilts.....Treasurer

BOARD OF GOVERNORS
Frances Crisp Steve Taylor
Dart Rinefort

MINUTES OF THE JUNE MEETING

1. The meeting opened with self introductions at 7:30 PM.
2. It was noted that Professor Rod Keith will retire this summer from Cal Poly, San Luis Obispo.
3. Rich Leao announced that this year's Tennis Tournament will be held June 3, 1988.
4. Tom Gilbertson announced that the ASHRAE Research Donations, collected to-date, is approximately \$6,000.00. Tom conducted a drawing for a free trip to Hawaii for all private donations made to ASHRAE research for \$100.00 or more. The winner, for this special drawing, was our president, Dart Rinefort. Tom congratulated the members of his committee that helped to solicit the donations made to ASHRAE Research.
5. Tom White made a motion to the Chapter to advise the Society that the Golden Gate Chapter would be proud to host the winter meeting, January 27, 1988. A unanimous vote was taken by the Chapter members authorizing the Board to approve that such a letter be written to the Society requesting the Winter Meeting be held in San Francisco. Although 9½ years away, Tom encouraged the Chapter to plan early.
6. President Dart Rinefort gave a report of the following year's activity in the Golden Gate Chapter for all committees and special events. Please refer to the June Fog Dispenser for a brief written report.
7. The Chapter gave special recognition to Tom White and his wife Adele, for their dedicated service to the Golden Gate Chapter and the ASHRAE Society, for over 50 years of service.
8. A special gift was given to Bob Justus for his many years of dedicated service to our Chapter.
9. Don Bryant distributed certificates for the students that completed the UC Extension courses in HVAC and R.
10. Special recognition was given to the members of our Chapter that

are ^{fellow} members of our Society. The Golden Gate Chapter's Fellow Members include: Don Bryant, Carl Jordan, Karl Guttman, Dick Friedman, Bob Voelz, Tom White, Gus Gendler, Dale Missimer, and Tom Simonson.

11. Special awards of service were given to our committee leaders for this year. Bob Braun, Rich Leao, Dick Frenzel, Carl Jordan, John Lewis, Dave Rifkin, Lew Brooks, Eric Johnson, Bruce Montgomery, Paul Robinson, Tom White, Dave Eisenberg, Lance Almon, Dennis Thompson, Lucy Santos, Gary Harbisson, Dan Barango, and Tom Gilbertson.

12. President Sherman Brown introduced our guest speaker: Lucy Gill. Lucy is a local consultant, specializing in organizational counseling. She spoke on creating the ultimate work environment and provided many helpful guidelines essential to effective teamwork. Lucy identified four areas essential to good communications. First - clear goals, objectives, priorities and expectations. Second - clear roles, responsibilities, expectations and assumptions. Third - Clear procedures at all levels of management. Fourth - Functional relationships, be open minded, listen to disagreements, be a problem solver.

It was pointed out that these four areas of communication are essential to good marriages, family relationships, as well as professional relationships.

RAFFLE DONATIONS

Many thanks to the companies below for their generous donations for our raffles.

March 1988

BROWN CO.
LAWS AND ASSOCIATES
APPLIED AIR FILTERS

April 1988

TED JACOB ENGINEERING GROUP
N.S. WRIGHT EQUIPMENT CO.
BROWN CO.
GLUMAC & ASSOCIATES

June 1988

MATERIAL SURVEY ASSOCIATES
L.O. SCHUELKE CO., INC.
THE BROSE CO.
ENGINEERED DATA ENVIRONMENTS

PLUS A SPECIAL \$100 DONATION FROM PACIFIC GAS & ELECTRIC

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Inside sales position available at Prime Air, Inc. Some experience in air conditioning equipment preferred. Call Tom Lew at (415)348-0555 or send resume to:

Prime Air
700 So. Claremont, Suite 111
San Mateo, CA 94402
Attn: Tom Lew

MECHANICAL ENGINEER

Challenging opportunity for ME with experience in utility systems, planning and design. Experienced in steam and chilled water distribution systems, controls, process piping, plumbing and HVAC systems. EOE

Kennedy/Jenks/Chilton
543 Byron Street
Palo Alto, CA 94301
(415) 326-2570

COURSE ANNOUNCEMENT AND REQUEST FOR ASSISTANCE

Architecture 244: MECHANICAL SYSTEMS FOR ENVIRONMENTAL CONTROL
New Class at U.C.Berkeley, Fall '88
Asst.Prof. Gail Schiller
10 weeks (Oct.4-Dec.8)

This class is specifically designed to address what the architect needs to know about HVAC. It will focus on a conceptual understanding of the functions of different systems, energy consequences of design decisions, how to provide for adequate space and access during the early stages of the design process, and how to communicate effectively with mechanical engineering consultants throughout the building's design and construction. Additional topics include: integrating mechanical systems with passive environmental control strategies, innovative technologies for providing occupants with individual control, applications of thermal storage, and architectural measures for minimizing HVAC acoustical problems.

Assistant Professor Gail Schiller would like to talk with people interested in being guest speakers, and believes the course would benefit greatly from the ideas and assistance of professional engineers who frequently work directly with architects. As examples, guest lectures might focus on best and worst experiences with architects during the design process, guidelines for maintaining good working relationships between the architect and engineer, case studies of interesting projects addressing any of the topics described above, or projects that required an unusual level of cooperation between the architect and engineer. Dr. Schiller is also interested in arranging tours of interesting buildings in the local area. If you can offer your assistance in any area, or would simply like to share ideas about the course, please call Gail Schiller at (415)642-1696, or write to Dept. of Architecture, University of California, Berkeley, CA 94720.

OCTOBER MINUTES CONTINUED

In summary Mike recommended that you go slowly with the smoke control design. Make it as simple as you can. In most cases where you have the complicated automatic systems, when an emergency occurs, either a component in the system fails or the Fire Department does not know how to operate it. As a result, you do not have an effective smoke control system regardless of how much money was spent on it. The design process and all design instruction should be very carefully documented. "Do not stretch beyond your expertise."

A movie prepared by the San Francisco Fire Department called "Operation San Francisco" documents the effectiveness of various fire alarm and suppression systems in actual fire conditions. This film is available to the public through the San Francisco Fire Department.

A lively question and answer period followed Michael Dillon's presentation.

10. The meeting was adjourned at 9:25 p.m.

by TOM REINARTS, SECRETARY

SPECIAL THANKS to the following companies who donated prizes for the OCTOBER RAFFLE.

Engineered Air Systems
Marellich Mechanical
Montgomery & Roberts
Tempco Equipment Co.

Also, many thanks to all those who bought raffle tickets in support of the Chapter's Scholarship Fund by ERIC TINGLOFF, RAFFLE CHAIRMAN

TITLE 24 SEMINAR NEEDS HELP

Our chapter is co-sponsoring this seminar on November 30 at PG&E. The seminar is being organized by the Energy and Technical Affairs Committee. If you can serve on the committee this year, please call Chairperson Tom McKewan at 398-7667.

DESIGN ENGINEER WANTED

Young SF Engineering firm specializing in energy efficient design seeks experienced HVAC & Steam System designer. Minimum B.S. w/ 5 Yrs experience and CA P.E.-Mechanical required. Full benefits, excellent work environment. EOE. Send full resume to P.O. Box 3413, SF, CA 94126

MECHANICAL ENGINEER

or Designer for key position with established Contra Costa Consulting firm. Minimum 5 to 10 years experience in plumbing and HVAC preferred. Benefits.

Henry & Associates; call Cliff Henry at 631-0290

THE FOG DISPENSER AD RATE is only \$25 per ad, any length, within reason. Just fax your ad to Marie Hoch at 785-4804. And mail or deliver your check (no faxes) to Barbara Dilts, PG&E, Marketing Dept. 6th flr, 1170 market St., SF, CA 94102

ASHRAE NEW MEMBERS

Let's all give a warm welcome to:

Timothy Provo - Prime Air Inc.
Bob Weisenberg - E.B. Ward Co.
Les Homan - Homan Engineering Corp.
Brad Weaver - Leo A. Daly
Kent Laws - Laws & Associates
Ron Arthur - Flack & Kurtz
John Enghardt - Liebert Associates
Mark Brown - Skidmore, Owings & Merrill
Farhad Banisadr - Carrier Corp.
Enrique Mercurio - Glumac & Assoc.

by DAN VASQUEZ, MEMBERSHIP CHAIR.

ASHRAE CALLS FOR MEETING PAPERS

ASHRAE has issued a call for papers for the 1990 meeting in Atlanta, GA. Papers accepted for presentation will be published in ASHRAE Transactions. For more information, contact: Continuing Ed. & Chapter Programs, ASHRAE 1791 Tullie Circle NE, Atlanta, GA 30329



VOLUME XXVIII NO. 2

NOVEMBER 1988

MEETING NOTICE

DATE: THURSDAY NOVEMBER 3, 1988
SOCIAL HOUR: 5:30 P.M.
DINNER: 6:30 P.M.
LOCATION: ENGINEERS CLUB
160 Sansome Street
San Francisco, CA

NOTE: Reservation cards must be received no later than Tuesday, Nov. 1st. If your plans change, please call the Engineers Club (415) 421-3184 or Gino Colacchia at Kalman Mechanical Inc. (415) 524-8094, no later than noon of the meeting date. Our chapter must pay if you do not show up for dinner, so please call. We can't guarantee your meal without a reservation.

NOVEMBER PROGRAM

The program will be presented by Mr. Dick Friedman, P.E. Fellow. He will present a 37 year retrospective of our industry. He will focus on "Opportunities, Advantages and Problems" within our industry.

The November Meeting will also be Student Night. Please let a board member know if you can sponsor a student dinner.

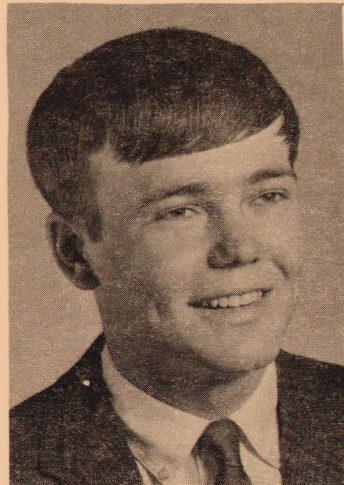
HONOR ROLL**LAWS AND ASSOCIATES**

Mechanical Consulting Engineers

A. CALVIN LAWS**KENT LAWS**

433 Airport Blvd., Suite 226
Burlingame, CA 94010 (415) 348-8433

PRESIDENT'S MESSAGE



Our October meeting was well attended and we thank Mike Dillon for his excellent presentation. I think we all learned how to avoid design conflicts in smoke control.

Tom McKewan has been very busy preparing for the Title 24 Seminar which will be held November 30th. Tom could use some help with carrying out the details, so please call him at 398-7667 if you're available. ASHRAE Golden Gate will hold this seminar at the PG&E auditorium and all profits will go to ASHRAE Research. I encourage all members to help make this a success.

I have appointed a Presidential Committee to review Golden Gate's Constitution to draft a new constitution and bylaws. This new constitution will then comply with our Society's, hopefully. Our members serving on this committee are: Robert Voelz, Richard Aronovsky, Tom White, Jim Nemechek and myself. If there are any members who would like to serve on this democratic committee, please call me. Our first meeting will be held in the

second week of November.

The Board has researched local banks interest rates to set aside money for our scholarship fund. Our first scholarship will be available in June 1989.

As a reminder, I think it is important to define ASHRAE.

ASHRAE IS PEOPLE

- Advances the arts and sciences of Heating, Refrigeration, Air Conditioning and Ventilation
- Stimulates technological progress for the good of mankind
- Helps the individual engineer, the industry and the public to increase its funds of knowledge through Society publications and activities
- Researches information to contribute to standards of health, improve application for the benefit of the general public
- Addresses its technology and achievements to all whose livelihood stems from our industry
- Encourages the continuing education and professional advancement of its members

In summary, thank you for your support and let's stay active.

Sherman Brown, President

MINUTES OF THE OCTOBER MEETING

October 6, 1988

Attendance: 78 Members, 14 Guests

1. The meeting was called to order by President Sherman Brown at 7:20 p.m. Self introductions were made.
2. The minutes of the June 1988 meeting were reviewed. Two corrections were made as follows:
 - a. In item no. 5, Tom White made a motion that the Golden Gate Chapter bid for hosting the Society Winter Meeting on Jan. 27, 1999, and not 1988.
 - b. In item no. 10, special recognition was given to members of our Chapter who are FELLOWS of our society.

The minutes were approved as corrected.

3. All of the committee Chairperson positions have been filled. Everyone was thanked with a special "thanks" to our new FOG DISPENSER editor, Marie Hoch.
4. President Brown announced that the Society had recognized the 1987-1988 activities of the Golden Gate Chapter by awarding our Chapter the President's Award of Excellence Star.
5. Tom McKewan, Chairman of the Energy Conservation Committee, reported on the Title 24 Compliance Seminar that will be held on November 30, 1988. Details will be sent to all members.
6. The Society Research Committee has a very ambitious program for 1988/1989. The goal is to raise approximately \$1,000,000 for this very important ASHRAE activity.
7. Frank Mayhew reported on his personal commitment of support to Cal Poly, San Luis Obispo. His goal is to establish a \$500,000 endowment within the next five years. The en-

dowment would be used to further Air-Conditioning Education at Cal Poly. Frank requested the support of the Golden Gate Chapter and the entire ASHRAE Region X.

8. Tom White reported on the required changes of the Golden Gate Chapter Constitution and By-laws to conform to the Society Constitution and By-laws. The changes will be discussed by a Presidential Committee.

9. Dart Rinefort introduced our guest speaker, Michael E. Dillon, P.E. Mike is no stranger to the Golden Gate Chapter, as he is very active in Society and Regional Committees. Mike's topic was Forensic Engineering: Smoke Control in Building Design.

The number and amount of liability lawsuits are increasing dramatically. In addition, the various codes and laws that deal with building design and construction are becoming harder to interpret and comply with. In some cases, different sections of the code are in direct conflict with each other, making compliance totally impossible. Mike cautioned that "designing for things you don't fully understand can be very dangerous." The smoke control system must be a totally integrated system that considers the architectural, structural, mechanical and electrical elements of the design. "Real smoke control is not cheap." A completely integrated smoke control system can add \$5 to \$10 per square foot to the cost of a building.

The first element of a good smoke control system is a complete fire sprinkler system. Without the sprinklers, the smoke control system may not work effectively in an emergency situation. Testing the operation of a smoke control system can be difficult. There is no code that defines how a system should be tested. It is very important that the testing and acceptance procedures be clearly spelled out by the authority having jurisdiction before the design process starts.

KNOW A PROSPECTIVE NEW MEMBER?

Contact Membership Chairman:
Dan Vasquez - 408/288-9551

Mail or Phone News to:
Marie Hoch, Editor
FOG DISPENSER
Air Filter Sales & Service
20671 Corsair Boulevard
Hayward, CA 94545
(415) 785-4800
FAX (415) 785-4804

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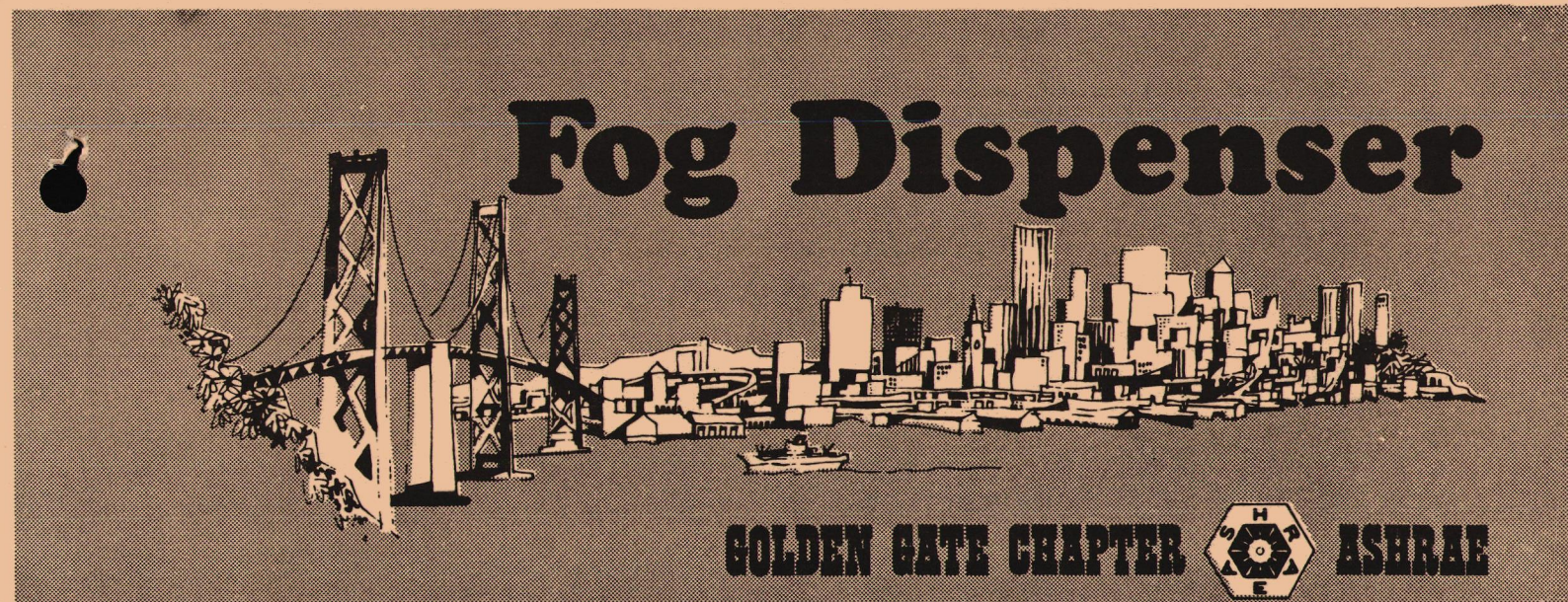
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1989 MEETING DATES & TOPICS

- 1/5/89 "Tom Simonson - Engineers Nite"
- 2/2/89 "Thermal Comfort of Office Buildings", Gail Schiller, Assistant Professor, Bldg. Science with U.C. Berkeley, will review case studies of thermal comfort in Bay Area Office Buildings.
- 3/2/89 "C.F.C.'s" - Dick Charles will discuss the impact on our industry and the world.
- 4/6/89 "New A.R.I. Standards"
- 5/4/89 "Field Trip of an Operating HVAC System in a San Francisco office building."
- 6/1/89 Special program for companion nite.



VOLUME XXVIII NO. 3

DECEMBER 1988

MEETING NOTICE

DATE: THURSDAY, DEC. 1, 1988
 SOCIAL HOUR: 5:30 P.M.
 DINNER: 6:30 P.M. \$18.50
 LOCATION: ENGINEERS CLUB
 160 Sansome Street
 San Francisco, CA

DECEMBER PROGRAM

Mr. Lewis Brooks, P.E. of Brooks Enterprises, and Mr. John Hogan of Sporlan Valve, will present "A Basic Refrigeration Design". They will develop a sample design of a typical 100 ton reciprocal refrigeration system.

NOTE: Reservation cards must arrive no later than Tues. Nov. 29th. If your plans change, please call the Engineers Club at 421-3184 or Gino Colacchia at Kalman Mechanical at (524-8094) no later than noon of the meeting date. Our chapter must pay if you don't show up, so please call. We can't guarantee your meal without a reservation.

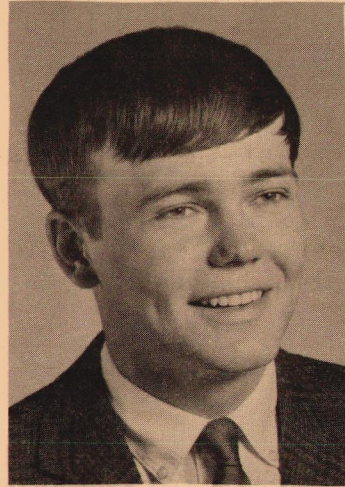
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 Activated Carbon • Chemisorbant • Gages Instruments

PRESIDENT'S MESSAGE



The Golden Gate Chapter has been officially presented with the "50th anniversary" banner. Tom White presented this to our Chapter at the last meeting. We should all take great pride in our Chapter's History.

I have been busy with the help of Tom White reviewing Golden Gate's constitution and bylaws to comply with our Society. There will be a Presidential Committee meeting at 6:00 P.M., December 1st at the Engineer's Club. All members who are interested should attend. This is an open meeting to all members.

I encourage all of you to assist Frank Mayhew and his efforts with the Cal Poly fund raising. The Bay Area and our industry has benefited from the talent graduating from this school. Let us all hope that Cal Poly and this department continue for generations.

December is membership night. I encourage all members to bring a prospective new member and receive a bottle of wine from Dan Vasquez.

The November issue of Insights front page awarded Golden Gate 2575 P.A.O.E. points. This will place another Red award on our banner. Congratulations to all active members that made this possible!

I wish all of you a Happy Holiday Season.

Sherman Brown, President

THANK YOU, THANK YOU!

The sponsors of student dinner tickets at our November meeting:

- Jim Taylor
Fran Crisp
Dennis Thompson
Frank Mayhew
Ben Sun
Ted Jacob Eng.
Syska & Hennessy
Dart Rinefort
Eric Darnton
Chuck Shane
Rich Wells

THANKS AGAIN!!!!!!

Special thanks to the following companies who donated prizes for the November Raffle:

- Air Filter Control
Kent Lim Co.
Linford Engineering
Norman S. Wright Co.

Raffle ticket sales yielded an earnings of \$100 in support of the Chapter's scholarship fund!

Obituary

James W. McClenahan, 74, was a long time Golden Gate Chapter member as well as a Life and Associate member of ASHRAE. He joined ASHVE, a predecessor society, in 1948. His address was P.O. Box 1149, San Mateo, CA 94403.

The following organization is unrelated to ASHRAE, but has asked to have the following announcement published in the Fog Dispenser:

ENGINEERS FOR SOCIAL RESPONSIBILITY is a recently formed national group of engineers which actively encourages all engineers to exercise their ethical responsibilities guided by two primary principles: (1) AESR maintains that it is the primary duty of all engineers to use their skill and knowledge to enhance human welfare and (2) AESR further recognizes that human well-being is inextricably linked with the well-being of all life on earth.

AESR is directing its initial efforts toward fostering discussion in technical media and at professional society meetings. Initial topics include the maintenance and production of nuclear, chemical and biological weapons, the depletion of non-renewable resources, and pollution producing technology.

For more information please contact: Fred Otte
AESR-California
2597 Virginia St.
Berkeley, CA 94709
(415) 548-8515

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industry is not set up nor does it have the resources to do the required on-the-job training.

Our industry has many experts but they do not appreciate how all the specialities dovetail. We need people who can trouble-shoot in the field and can also design systems at the board and know how all systems interlink--having the broad picture and being able to specialize also. We can obtain an engineering license without ever coming off the boards or knowing how to keep costs within budget limits or knowing how to trouble-shoot.

ASHRAE and SMACNA get together more frequently in other areas than they do in San Francisco. Designers and contractors must associate at the social level to help relationships while on the job.

Employers should be certain that their people are qualified to take responsibility. Calculations, such as duct static pressure drop, piping heads, etc. all should be done correctly and checked. Dick emphasized that HVAC controls are better when they remain simple. Designers need to visit finished projects thus helping to prevent repeated mistakes.

The Golden Gate Chapter of ASHRAE needs to have speakers that can share their talents with the Chapter on general topics and not focus on sales pitches.

A "question/answer" period followed Dick's presentation.

14. The December meeting topic will be "Design of Refrigeration Systems--From Beginning to End."

15. The meeting was adjourned at 9:05 p.m.

by Tom Reinarts & Fran Crisp

MINUTES OF THE NOVEMBER MEETING

November 3, 1988

Attendance: 71 Members, 21 Guests

1. The November General Chapter Meeting was called to order by President Sherman Brown at 7:20 p.m. Self-introductions were made.

2. The Minutes of the October meeting were reviewed. One correction was made: that the Golden Gate Chapter should bid for hosting the Society Winter Meeting in January, 1998--not 1989.

3. Dick Charles, Society Vice President, reported on Society activities. National ASHRAE now has four vice presidents. As a Society Vice President, Dick is responsible for publishing. His duties include articles for ASHRAE JOURNAL; articles for INSIGHTS; information/input for next pocket handbook.

4. President Brown reported on the status of the By-Laws. He requested volunteers to serve on the By-Law Review Committee. Dick Friedman, George Aronovsky, Jim Nemechek, Tom White and Bob Voelz volunteered. President Brown will Chair the committee.

5. Magie Selig reported on the Spring Seminar. She asked everyone to fill out the seminar questionnaire.

6. Tom McKewan reported on the status of the T-24 Seminar to be held on 11/30/88.

7. Membership Night will be observed at our December meeting. Please bring a new member that evening with an application, and you will receive a bottle of wine at the January, 1989, meeting.

8. Frank Mayhew reports the campaign kick-off for the establishment of an endowment at Cal Poly. The goal is \$500,000. Our industry needs to support the Air-Conditioning Department/programs. The endowment would support Engineering Technicians and Mechanical Engineering Departments at Cal Poly. We can pledge a lump sum or a pledge of money for a given number of years. It can be charged on MasterCard or VISA. Ask Frank for a pledge form.

Your checks can be mailed to Frank or he can bill you. Donations from companies, as well as individuals, are welcome.

9. Tom White was presented with a badge of recognition dated 1984-85 for his work on the history of the Golden Gate Chapter which is recorded with the Society.

10. Our guest, Rod Kief, retired in July from Cal Poly; however, he will remain active with the students. Rod derives a great deal of satisfaction from his involvement with the students.

11. Carl Jordan and the rest of the Chapter commended Rod Kief for his tremendous contribution to ASHRAE.

12. At 8:10 p.m. our November raffle was held. Prizes were sponsored by Linford Air & Refrigeration, Air Filter Control, Norman S. Wright and Kent M. Lim Company.

13. The speaker for our meeting, Dick Friedman, was introduced. Dick graduated with a BME in 1951 from NYU. He taught for several years at NYU and presently teaches HVAC Systems Design at U.C. Berkeley Extension. Dick founded Engineered Air Systems in May, 1958. An ASHRAE member since 1953, Dick is also a Past President (1969-70) as well as a Fellow of the Society (1982). With SMACNA Dick co-authored the book, LOW PRESSURE DUCT CONSTRUCTION MANUAL, which is the standard for duct construction throughout the United States and Canada.

Dick's topic was a retrospective of HVAC engineering in California covering 37 years in different branches of our industry. Currently, the HVAC industry in San Francisco is suffering from lack of availability of college level engineering courses at night. Diverse employment in contracting, consulting and sales is available to the new engineer. It is important that we are aware of the role to which we are best suited. Personal satisfaction is gained in knowing our strengths, weaknesses and which career choice is most compatible with our talents.

Most professionals are trained in school for their fields. This is not so for the HVAC engineer (except for Cal Poly). The

In Memoriam: Robert B. Holland

1988 ASHRAE Handbook Published

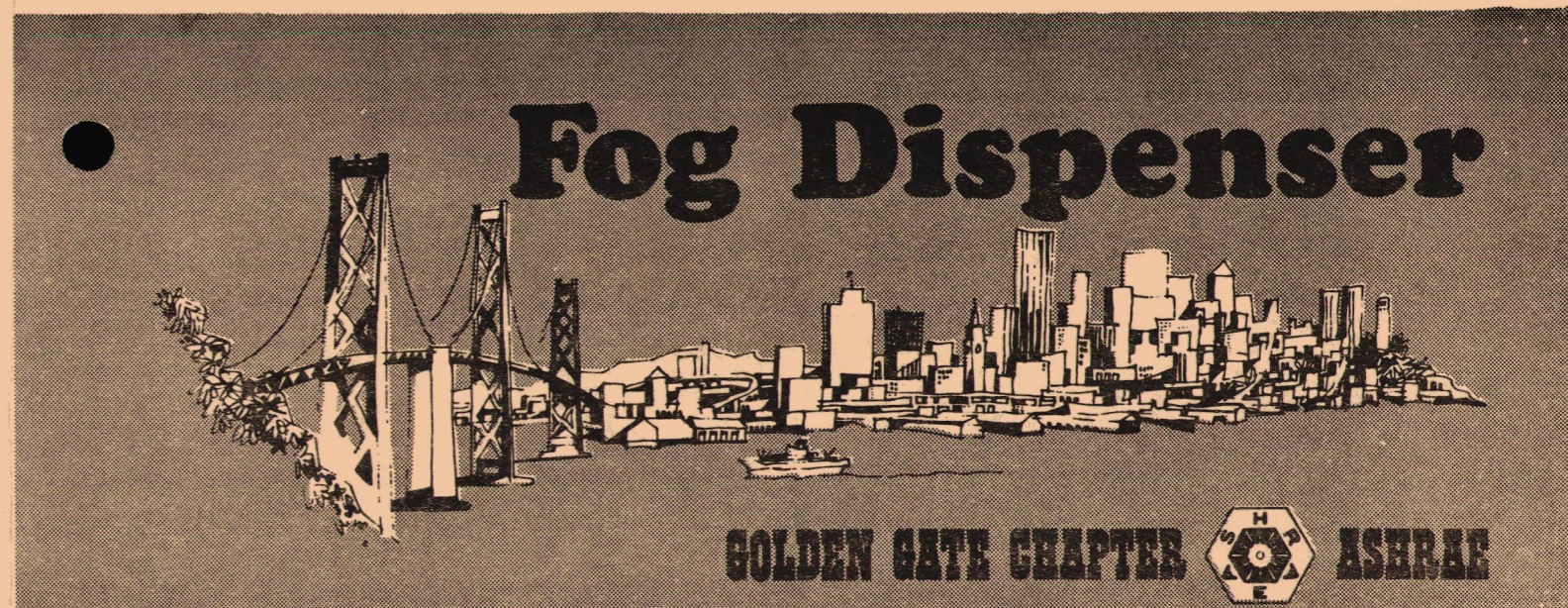
Robert B. Holland, past president of the Golden Gate Chapter of ASHVE (1945-1946), passed away on May 3, 1988.

Bob Holland had a very successful career as an industrial refrigeration sales engineer for York Corporation in San Francisco, after which he started Robert B. Holland Company. He was a registered professional engineer and introduced Baltimore Aircoil to the West Coast. Bob is survived by Alice Holland, his wife of 65 years.

Remembrances may be sent in Bob's name to:

Mother Philomena
c/o Carmelite Monastery
27601 Highway 1
Carmel, California 93923

The 1988 Equipment Volume provides principles of operation, types of construction, performance characteristics, methods for testing and rating, pertinent standards, and factors for selection.



VOLUME XXVII No. 9

JUNE 1988

MEETING NOTICEJUNE PROGRAM

DATE: THURSDAY, JUNE 2, 1988
SOCIAL HOUR: 5:30 P.M.
DINNER: 6:30 P.M.
LOCATION: ENGINEERS' CLUB
160 SANSOME ST.
SAN FRANCISCO, CA
(415) 421-3184

Lucy Gill, a local consultant and teacher, will present "Creating the Ultimate Work Environment." With mutually beneficial goal selection, the company and the individual can work together to achieve more. We lag the Japanese in the business world and must now set out to be the BEST.

***** RESERVATION CARDS MUST BE RECEIVED BY SHERMAN BROWN (VIA MAIL OR FAX) NO LATER THAN TUESDAY, MAY 31.
IF YOUR PLANS CHANGE, PLEASE ADVISE THE ENGINEERS' CLUB OR SHERMAN BROWN AT PRIME AIR NO LATER THAN NOON OF THE MEETING DATE.
ENGINEERS' CLUB: (415) 421-3184
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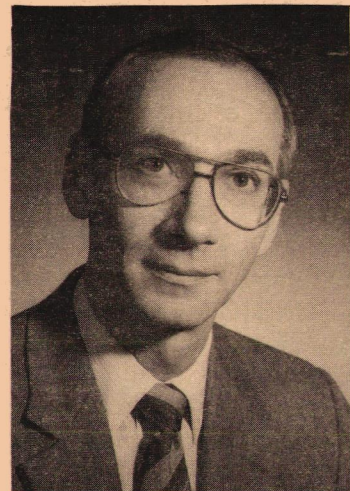
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This being my last president's message, I want to take the opportunity to acknowledge all the people behind the scenes that helped make this a successful year for the Chapter.

Sherman Brown did an outstanding job of lining up interesting programs this year which accounted for our fine meeting attendance record. Gino Colacchia has his work cut out for him next year trying to follow Sherman's lead.

John Lewis, Auditing Chairman, has completed his review of the books and reports that we are still legitimate and in the black. Paul Robinson and his Code Committee struggled through many long and tedious meetings, reviewing proposed changes to the Smoke Management provisions of the code.

Gary Harbison did a superb job of reactivating the student chapter interest and has us well on our way to chartering a new student chapter at S. F. State. The Energy Committee, under the direction of Tom Mc-

Kewan, is organizing a Title 24 seminar and reviewing a newly enacted Energy Ordinance by the City of San Francisco.

Lance Almon, our Fog Dispenser Editor, always managed to meet the publishing deadlines in spite of late copy arrivals and massive editing requirements. Tom White kept our Chapter history alive, sorting through boxes of new information received this year from recent past presidents.

Richard Frenzel earned over \$500 for the Chapter by pestering many firms for Honor Roll donations.

Dan Vasquez wore out his printer sending out letters and information to prospective new members and several pencils maintaining the bookkeeping chores. Dave Eisenberg came up with the most innovative raffle gifts yet and earned the Chapter nearly \$600 in the process.

Dan Barrango and Steve Guttman put together an outstanding seminar on controls and created the idea of interspersing workshops with lecture sessions, a format that will surely be followed in future years. Their hard work generated a profit for the chapter of over \$7000.

Dennis Thompson faithfully greeted members at each meeting and was always the last one to leave, waiting patiently for all to turn in their badges. Lucy Santos produced the Roster accurately and on time while in the middle of her struggle against adversity.

Tom Gilbertson initiated the "Hawaii Drawing" as an incentive to donate \$100 or more to the research fund, raising nearly \$6000 in member contributions, one of the all time highs for this Chapter. Carl Jordan kept up the pressure on City Hall to keep ASHRAE cur-

rent on code rulings and code issues.

Dave Rifkin organized the very successful Table Top Equipment show that netted the Chapter over \$4000. Rich Leao is matching the skills of our best tennis players in this year's tennis tournament.

Bruce Montgomery developed selection criteria for the student scholarship program that should begin in the spring of 1989 and presented awards to division winners in the Science Fair program for both junior and senior high school students.

Eric Johnson helped get the name of ASHRAE out in front of the public as Publicity Chairman. Bob Braun made sure that ASHRAE matters were properly voiced to the government agencies.

Major disbursements anticipated this year include a check to ASHRAE Research for \$7500, the CalPoly Workshop program for \$1500 and the Scholarship Annuity Fund for over \$1000.

Clearly, the Golden Gate Chapter is a special organization with many hardworking and dedicated members giving freely of their time and talent to keep the programs and activities moving throughout the year. Please plan to come to the June meeting and help me recognize the many people that contributed so much to this year's success.

We will also be honoring the past presidents as well as offering special recognition to the Fellow members of the Chapter.

Most of all, thank you for the opportunity to serve this year as your president.

Dart Rinefort, President

Winter in Chicago

The 1989 ASHRAE Winter Meeting will be at the Palmer House Hotel in Chicago, Illinois, January 28 through February 1, 1989. Dig out your mittens and start making plans now.

ASHRAE Research HAWAII TRIP

You still have a chance to contribute to ASHRAE Research and WIN A TRIP TO HAWAII!! Every individual who contributes a minimum of \$100 to ASHRAE Research and comes to the June meeting has a chance to WIN.

Help support the valuable research of our Society, enjoy an evening with the folks of Golden Gate Chapter AND maybe win transportation to Hawaii and lodging for a week.

The odds are still VERY good, so bring your checkbook to the meeting!

Title 24 Software Fair

The California Association of Building Energy Consultants (CABEC) is holding a Title 24 Energy Software Fair on Friday, June 10, from 11:00 a.m. to 7:00 p.m. at the Oakland Airport Holiday Inn. Vendors of the following software will be giving demonstrations: ADM2, MICRO-DOE.2, TRACE, COMPLY 24, HAP, MICROPAS 3, EASY CALC, SECOND GEN, LIGHTING CALC., TL24 (Lighting), CALPAS 4, and SCM.

Admission is \$10.00. For more information, call Michael Gabel at: (415) 428-1588.

1988 ASHRAE Annual Meeting

The 1988 Annual Meeting will be in Ottawa, Ontario, Canada, June 25-29. More than 200 speakers from ten countries will participate in the comprehensive technical program. Among the program sessions are static regain method of duct design, simplified model for cooling predictions, evaporative cooling, heat transfer enhancement in hvac applications, variable-speed heat pumps, fan vibration problems, smoke control systems interfacing with model codes, design of run-around heat recovery system, thermal bridge effects in buildings, testing and specifying air filters for performance at discrete particle sizes, heat actuated cooling, and commissioning of building envelopes.

See you in Ottawa!

Know a Prospective New Member?

Contact
Membership Chairman:
Dan Vasquez-415/827-4040

Mail or Phone News to:

Lance Almon, Editor
FOG DISPENSER
Almon HVAC Sales
143 — 41st Avenue
San Mateo, CA 94403
(415) 571-5857

COPY DEADLINE

In order to meet our publication dates, we have established the following as the last possible date, that copy for the FOG DISPENSER can be in the editor's hands:

Meeting date Copy deadline

Published Monthly, October through June, by the Golden Gate Chapter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, c/o Duplicating Associates, 370 Brannan Street, San Francisco, CA 94107—Phone 495-4552

1987-1988 OFFICERS

Dart Rinefort President
Sherman Brown ... President-Elect
Gino Colacchia Secretary
Tom Reinarts Treasurer

BOARD OF GOVERNORS

Barbara Dilts Frances Crisp
Dave Rifkin

CRC AGENDA

Thursday May 5

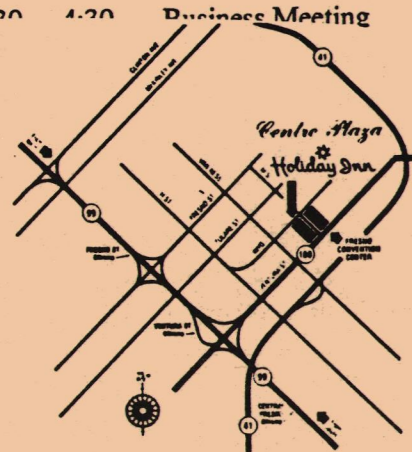
- 12:00 - 4:00 Golf Tournament
- 12:00 - 4:00 Tennis Tournament
- 5:00 - 6:00 Delegates Pre-Caucus Meeting
(Please Make Your Own Dinner Plans)
- 6:00 - 7:30 Welcome Party
Hosted for Registrants with Entertainment

Friday May 6

- 7:00 - 8:30 Delegates' Breakfast
- 8:30 - 1:00 Companion Activity
- 8:30 - 12:00 General Session
- 12:00 - 1:00 President's Lunch
- 1:30 - 4:30 Workshops
 1. Chapter Operations/Historian
 2. Membership
 3. "R" in ASHRAE (TES Tour)
- 6:30 Cocktails (No Host)
- 7:45 - 10:30 Awards Banquet

Saturday May 7

- 7:00 - 8:30 Delegates' Breakfast
- 8:30 - 12:00 Companion Activity
- 8:30 - 12:00 Workshops
 1. Energy Management
 2. Education
- 12:00 - 1:30 Lunch (On Your Own)
- 1:30 - 4:30 Business Meeting



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TECHNICAL SEMINAR:

Five distinguished members of ASHRAE have prepared outstanding papers dedicated to bringing all who attend to the leading edge of the technology of variable air volume systems so widely applied in modern heating and air conditioning design.

We feel that all who attend will want to take dvantage of this unique opportunity.

The times, speakers, and subjects are listed below:

May 6.	8:30 A.M., Pierre Abou-Zeid, Krueger Manufacturing	"Direct Digitized Control of Variable Air Volume"
	10:00 A.M.	Coffee Break
	10:30 A.M., Pierre Abou-Zeid	"Pressurization For Laboratories"
	1:30 P.M., Michael E. Dillon, Robert M. Young & Associates	"Designing for Smoke Control"
	3:00 P.M.	Break
	3:30 P.M.	"Designing for Smoke Control" continued
May 7,	8:30 A.M., Daniel Int-Hout, Chief Engineer for Research and Development, Environmental Technologies, Inc.	"Room Air Distribution, Diffuser Selection, Acoustic and Box Selections"
	10:00 A.M.	Coffee Break
	10:30 A.M. Daniel Int-Hout	Morning Subject continued
	1:30 P.M. Richard G. Crane, Director, Systems Group, Anemostat	"Pressurization Control Through Flow Tracking: A Comparison of Pneumatic to DDC"
	3:30 P.M.	Break
	4:00 P.M. Victor A. Neuman, Lab Consultant and Mechanical Engineer, Earl Walls Associates	"Variable Volume Fume Hoods in Laboratories"

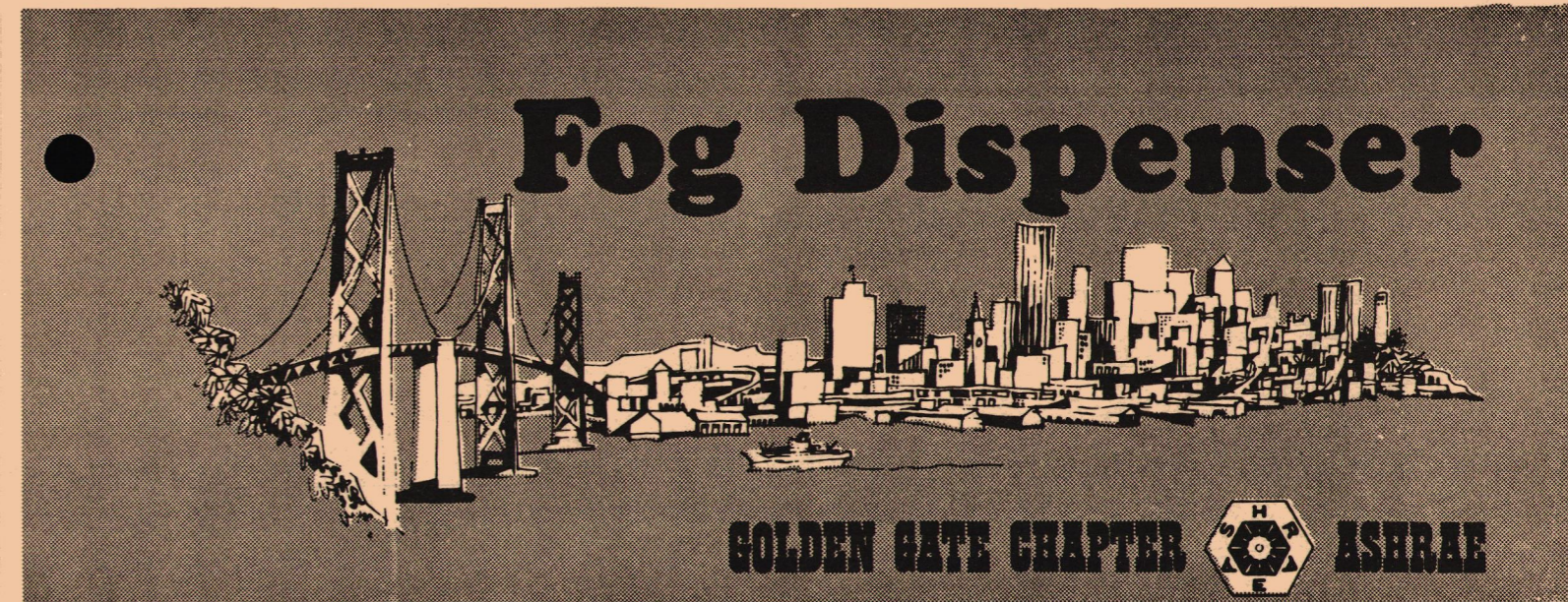
The cost of the Seminar is included in the registration fee for those who register for the conference.

For those who attend only the Seminar, the cost is listed below:

	Registration Fee Before April 1	Registration Fee After April 1
Members of ASHRAE	\$55.00	\$65.00
Non-Members of ASHRAE	\$70.00	\$80.00

Make checks payable to ASHRAE and mail to:
Robert Crozier
330 E. Griffith Way
Fresno, CA 93704

See you there!



VOLUME XXVII No. 8

MAY 1988

MEETING NOTICE

DATE: THURSDAY, MAY 12, 1988
TIME: GATHER BETWEEN 6:00 & 6:30 P.M.
PLACE: HILTON HOTEL, YOSEMITE ROOM,
333 O'FARRELL ST., SAN FRANCISCO.

MAY FIELD TRIP

The May field trip will be a thirty minute plant tour of PG&E's steam facility at 465 Stevenson St. in San Francisco.

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Pete Johnson
Sam Yamauchi

Darrell Lackey

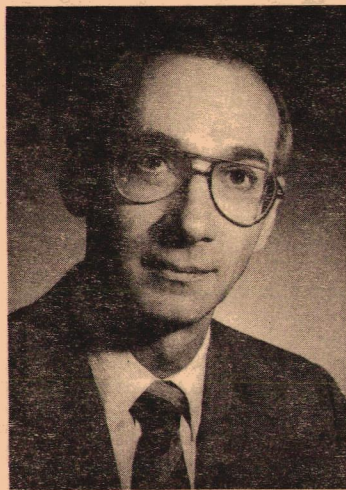
SEMINAR

San Jose Chapter is sponsoring a 1/2 day seminar on "Energy Upgrades of Existing Buildings" on Saturday, May 7th, Hewlett Packard Bldg. #48, Cupertino.
Fee: \$45 at the door.
Call: Dave Eisenberg for more info.
(415) 655-3990

EMPLOYMENT

Plan Specification Assistant Manager.
If interested call Rich Frenzel at
(415) 873-1660 for further details.

PRESIDENT'S MESSAGE



Many of our members are heading for Fresno May 5, 6 and 7 to participate in the annual Region X CRC (Chapters' Regional Conference) and attend the Technical Seminar on VAV Systems which is being held coincidentally with the CRC meetings. What a wonderful way to benefit from attending the Seminar and still be able to listen to and participate in ASHRAE's planning activities for the next year at the Regional level. It is not too late to register. Please see further information elsewhere in this issue of the Fog Dispenser.

We have just concluded this year's annual seminar on controls and it was OUTSTANDING. For those of you who did not attend, you missed a superb presentation from one of the best in the business - Roger Haines. Additionally, workshops and lectures were presented by Steve Taylor, Dave Joiner, Alan Dakessian, Bill Chapman, Bill Schultz and Dennis Thompson from the Golden Gate Chapter. Many thanks to each of you for the

time and effort you put into these very professional presentations. I must admit I was somewhat skeptical when Dan Barrango suggested the idea of incorporating workshops to supplement the normal lecture type presentations traditionally done in the past. But I must say that this format was executed perfectly and proved to be extremely successful and will no doubt set the pattern for future seminars. Many, many thanks to Dan Barrango, Steve Guttman, Bob Slakey, Magie Selig, Lance Almon and all the others that donated their time and talents to make this year's seminar such an outstanding success.

I was very pleased with the turnout of both students and professors from UC Berkeley and San Francisco State at our last chapter meeting. I'm excited about the possibility of establishing a student chapter at SF State this next year. The responses from professors Mamdouh Abo-El-Ata and Ahmad Ganji were very positive and I believe they are eager to have us support some of their programs and laboratory projects in turn. I received a very nice letter from Gail Schiller, assistant professor at UCB explaining in some detail the research she has been doing on indoor climate control and thermal comfort under an ASHRAE research grant. It is my hope that we can have her as guest speaker at one of our fall meetings to discuss her project and the process of obtaining ASHRAE research money.

REMINDER: The May chapter meeting has been postponed one week to allow for the CRC meeting in Fresno. Hope to see many of you in Fresno May 5, 6 and 7 and again at our field trip meeting on May 12th.

Dart Rinefort, President

MINUTES OF THE APRIL MEETING

4/7/88 meeting; 101 attendees including 10 student guests.

- 1. President Dart Rinefort opened the meeting with self introductions at 7:33 P.M.
2. Dart introduced the faculty members in attendance from San Francisco State University and UC Berkeley. Dart welcomed the student members and challenged them to be involved with the Golden Gate Chapter of ASHRAE.
3. The meeting minutes from the March meeting were approved as written.
4. Tom Gilbertson encouraged donations be made to ASHRAE Research. We were reminded that this year a special program has been arranged so that any one person contributing \$100 or more will be eligible to win a trip for two to Hawaii.
5. David Eisenberg announced (for the San Jose chapter) that they will conduct their seminar on Saturday, May 7. A flyer is now being sent in the mail.
6. Barbara Dilts announced the Golden Gate Chapter seminar on controls, which will be held April 13, 1988, one day, at the PG&E auditorium, in San Francisco. Advanced registration is \$120 or \$150 at the door.
7. Dart Rinefort acknowledged that the CRC Registration forms were not distributed to all Golden Gate Chapter members by the leadership of this year's CRC. A poll was taken of the members that did receive flyers which amounted to less than 10 people. Carl Jordan offered to copy his registration form to any member that so requested it from his office. This is a hardship on our Chapter since the registrations beyond April 1, 1988 are additional costs.
8. Dart Rinefort announced for Bruce Montgomery, that the scholarship program for the Golden Gate Chapter of ASHRAE has now developed a preliminary draft for the annuity fund which currently has approximately \$5,000. The annuity will be used for students scholarship. Students active in HVAC programs will be eligible. Bruce Montgomery's committee has now developed a rough draft for our Chapter to give input, shortly.
9. Dave Rifkin announced that the Golden Gate Chapter supported the Bay Area Science Fair by giving two awards to students for their award winning science projects.
10. The nominating committee, headed by Jim Nemechek, tallied the votes for next year's Board positions and made them known at the meeting.

- 11. The raffle was conducted at 8:20 P.M.
12. Our guest speaker, Mr. John Stranton from SMACNA spoke on the subject of duct leakage as established by the SMACNA Test Manual. John Stranton is the director of Technical Services for SMACNA. Duct testing procedures were discussed with respect to special classes established for duct pressures and leakage rates. It was stressed that the specifications should be written to identify within the bid documents what requirements will be necessary when testing ductwork. The SMACNA guide establishes classes for various pressures that should be identified within the bid documents.
13. The meeting adjourned at 9:38 P.M.

S.F. CODE UPDATE

"RETROACTIVE FIRE SPRINKLERS FOR HOTELS": "Better late than never: San Francisco Code Ruling No. HC-903-1 entitled "Hotel Sprinkler Ordinance 319-86" dated 10/22/87, clarifies certain sections of the San Francisco Building Code, The San Francisco Housing Code, and Hotel Sprinkler Ordinance 319-86. The Code Ruling and the Ordinance relate to requirements to add fire sprinklers in certain portions -- primarily public areas -- of existing hotels by specified dates. Because of the extent of the information covered by the four page Code Ruling and the nine page Ordinance, no attempt is made here to restate those requirements. Persons wishing more information should obtain copies of these documents from the City."

ADVERTISEMENTS

Inside Sales Engineer/Estimator - experienced in HVAC equipment selection, application and pricing. Will be responsible for takeoffs, bid preparation and "calling out" bids to Mechanical Contractors. Will involve some outside work servicing customers. Call or send resume to: Michael J. Rubio, Vice President, c/o G.J. Yamas Company, Inc., No. 1 South Linden Avenue, South San Francisco, CA 94080, (415) 589-8313.

FOR RENT - Drawing board and laytable with room for filing cabinets/credenza in architect's office at the Ferry Bldg. \$275 per month. Contact Joseph Atsus, A.I.A. at (415) 398-4840.

Know a Prospective New Member?

Contact Membership Chairman: Dan Vasquez - 415/827-4040

Mail or Phone News to: Lance Almon, Editor FOG DISPENSER Almon HVAC Sales 143 - 41st Avenue San Mateo, CA 94403 (415) 571-5857

COPY DEADLINE

In order to meet our publication dates, we have established the following as the last possible date, that copy for the FOG DISPENSER can be in the editor's hands:

Table with 2 columns: Meeting date, Copy deadline. Rows: April 7, 1988; May 5, 1988; June 5, 1988; April 20, 1988; May 18, 1988.

Published Monthly, October through June, by the Golden Gate Chapter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, c/o Duplicating Associates, 370 Brannan Street, San Francisco, CA 94107 - Phone 495-4552

1987-1988 OFFICERS

Dart Rinefort President Sherman Brown ... President-Elect Gino Colacchia Secretary Tom Reinarts Treasurer

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Barbara Dilts Frances Crisp Dave Rifkin

purpose of awarding a junior high school and a senior high school student with a special award in the category of Physical Sciences and Engineering. This was very enjoyable diversion from the everyday world of engineering. There were numerous exhibits in the junior division that relate to our industry. Some were "How much heat does Clothing Absorb", Thermal Conductance of Materials" and "Is my House Drafty". The senior division had only one.

The project that was my choice to receive our award in the junior division was entitled Solar Energy/Ecology. This project was trying to determine if the color of light and ambient temperature have an effect on a solar cell. The project was created by Eddy C. Manti of St. Pivs School.

The senior division project was entitled Flow of Particle Solids III. This project studied why a Stand Pipe speeds flow. This project was created by Kathleen D. Earls of Pinole Valley High School.

Overall the quality of all the exhibits was very good and hopefully we will be part of next year's Science Fair and we can send a group of judges from our chapter.

Bruce Montgomery, Scholarship Committee Chairman

EDUCATION COMMITTEE REQUEST

Gary Harbison asks that any member that has participated in Society Professional Development Seminars or any UC Berkeley Extension courses contact him with the details for the purpose of compiling our chapter's PADE points. Please call Gary at 415-653-7713 (Peter Hartdegen Co.).

RAFFLE SPONSORS

All prizes for the Raffle at the February meeting were provided by Landis & Gyr Powers.

Prizes for the Raffle at the March meeting were provided by the Brown Company, Laws & Associates, Cumali Consultation Bureau and Applied Air Filters.

CHAPTER TENNIS TOURNAMENT

June 3rd, 1988 is the date for the chapter's annual tennis bash. Mark your

calendar and grease your tennis elbow! The location will be the San Francisco Tennis Club. More info. and entry application w the next Fog Dispenser.

EMPLOYMENT OPPORTUNITIES

Outside Sales Engineer wanted, experienced in calling on engineers and contractors in the HVAC field. Call or send resume to: Gerry Yaffe, Tempco, P.O. Box 400, Brisbane, CA 94005, (415) 467-8680.



VOLUME XXVII No. 7

APRIL 1988

MEETING NOTICE

DATE: THURSDAY, APRIL 7, 1988
SOCIAL HOUR: 5:30 PM
** PRE-MEETING WORKSHOP: 5:45 PM
DINNER: 6:30 PM
LOCATION: ENGINEERS CLUB, 160 SANSOME ST., SAN FRANCISCO, CA, (415) 421-3184

SPECIAL NOTE: APRIL'S MEETING IS STUDENT NIGHT. MEMBERS ARE ENCOURAGED TO SPONSOR A STUDENT'S DINNER. RECOGNITION WILL BE GIVEN TO THOSE SPONSORING A STUDENT.

**** RESERVATION CARDS MUST BE RECEIVED BY SHERMAN BROWN (VIA MAIL OR FAX) NO LATER THAN TUESDAY, APRIL 5TH. FACULTY ADVISORS ARE REQUESTED TO CONTACT SHERMAN BROWN REGARDING THE NUMBER OF STUDENTS THAT WILL ATTEND. IF YOUR PLANS CHANGE, PLEASE ADVISE THE ENGINEERS CLUB OR SHERMAN BROWN AT PRIME AIR NO LATER THAN NOON OF THE MEETING DATE. ENGINEERS CLUB: (415) 421-3184 PRIME AIR: VOICE (415) 348-0555 FAX (415) 579-7880

APRIL PROGRAM

The program will discuss HVAC duct construction standards in the HVAC air duct leakage test manual by SMACNA. The presentation will be by Mr. John Stratton, Director of Technical Services for SMACNA.

He will give an interesting slide program covering both metal and flex duct construction standards and methods. John has presented this material throughout the U.S. and it promises to be an interesting program.

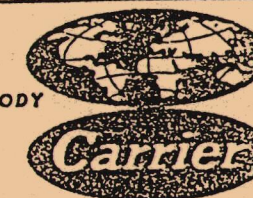
PRE-MEETING WORKSHOP

ASHRAE video tape entitled Laboratory HVAC Systems will be shown at 5:45 P.M.

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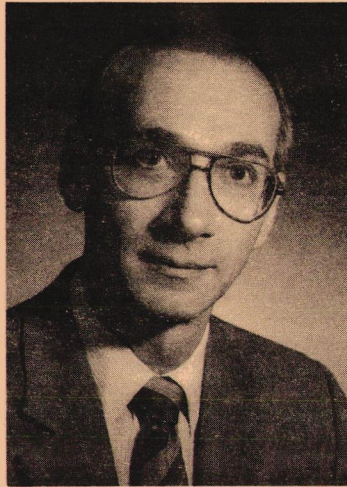


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"OUR GOLDEN ANNIVERSARY" 1938 - 1988

PRESIDENT'S MESSAGE



delighted with the enthusiastic and sincere interest he expressed in establishing a close bond between our organizations. I am very optimistic that we have found a Mechanical Engineering Department that we can nurture into a wonderful and meaningful relationship with our industry. I am anxious to introduce Ahmad and other key faculty members to the membership and hopefully they, with some of their students, will be able to attend our April student night meeting.

Bruce Montgomery, Scholarship Committee Chairman, participated in the judging and award of honors to junior high and high school students as a part of the Bay Area Science Fair competition held recently at the California Academy of Sciences, Golden Gate Park. Bruce will give you a complete report at our April chapter meeting. We are hopeful that the recipients of these awards will be able to attend our meeting and be recognized for their accomplishments.

The CRC conference is just around the corner (May 5th, 6th & 7th in Fresno) and I would like to encourage as many chapter members to attend as possible. This is the forum that gives the membership the opportunity to provide the Society with their ideas and suggestions for change. As you may have noted in the latest edition of ASHRAE INSIGHTS, significant Bylaw changes were made recently in the requirements for membership. These and other changes are the result of input at the CRC meetings from the membership. If you have suggestions that you believe should be presented for consideration, please contact Gino Colacchia or Sherman Brown, our CRC Region X delegates.

The April Chapter meeting is our annual

Our April meeting is the annual student night for our chapter and we ask for sponsors to host the meal costs for our student guests. Please contact Gary Harbison or any of the officers if you would be willing to purchase a dinner for one of our guest students.

One of my stated goals at the beginning of the year was to try to establish an active student chapter in our area. Our contact with UCB is in an inactive state at best and try as we have we've been unsuccessful in developing faculty interest in sustaining an active student chapter there. However, Gary has been talking with some of the faculty at San Francisco State University exploring their interest in developing an association with the Golden Gate chapter with the long term goal of opening a student chapter there. Gary and I had lunch with Ahmad Ganji, Associate Professor in the newly created Mechanical Engineering division recently and were

election night. Please be sure to either mail in the ballot included with this mailing of the Fog Dispenser or bring it with you to the meeting so that the nominating committee can report the final election results.

Please be sure to sign up for the Controls Seminar, April 13th. Dan Barrango and Steve Guttman have done an outstanding job in lining up some of the best talent in the field to make this an event you can't afford to miss.

See you at the April meeting. Please lend a hand in sponsoring a student guest for the evening.

Dart Rinefort, President

MINUTES OF THE MARCH MEETING

3/3/88 meeting; 93 attendees.

- 1. Meeting opened at 7:35 P.M. with self introductions.
2. President Dart Rinefort listed the Board members nominated for next year's Board positions. Sherman Brown - President, Gino Colacchia - President Elect, Tom Reinarts - Secretary, Barbara Dilts - Treasurer, Fran Crisp - Board Member, Dart Rinefort - Board Member, Steve Taylor - Incoming Board Member. A vote was taken for approval of the nominees. All listed were approved. No additional names were submitted from the floor as nominees.
3. The February meeting minutes were approved.
4. Due to the CRC Convention in Fresno, May 5-7, the Board agreed to postpone the standard monthly chapter meeting by one week. Therefore, the May meeting is scheduled for Thursday, May 12, 1988.
5. Honors and awards nominations for personal Society awards are requested from the membership. All nominations must be accompanied by a current detailed biographical record along with a letter of recommendation describing the candidates' qualifications. Gene Valerio and Jack Kniveton have volunteered to help the candidates complete the bio forms. The forms must be completed and turned in to any board member in time for submission to the CRC in May. We request these forms be submitted to the Board immediately.
6. Tom Gilbertson, Research Committee Chairman, requested that all donations to ASHRAE Research be received no later than

May 1, 1988. This year a special program has been arranged so that any one personal contribution of \$100 or more will be eligible to win a trip for two to Hawaii. The contributions made by private individuals will be eligible for the drawing.

7. Dan Barrango discussed this year's coming seminar to be held Wednesday, April 13, 1988, at the PG&E auditorium, San Francisco. The seminar topic is "Controls". The advance registration is \$120. Please contact Dan Barrango at 326-9115 or Steve Guttman at 775-0903 for additional information.

8. Lucy Santos was honored with a special award for her outstanding service and dedication to the Golden Gate Chapter of ASHRAE.

9. The program began at 8:24. Kevin Cunningham, Product Manager for Electric Controls for Landis and Gyr Powers, presented applications for direct digital controls incorporated into laboratory applications. The Direct Digital electronic control approach offers an excellent method of controlling laboratory air flows. With the new regulating codes, such as OSHA, proper air flow and laboratory hoods have become a critical design function in all laboratory operations since an immediate danger to an occupant is present should air flows go uncontrolled and unbalanced.

The meeting adjourned at 9:30 P.M.

1988 CRC - PLAN NOW FOR A GREAT TIME

The 1988 Chapters Regional Conference (CRC) will be hosted by the San Joaquin Chapter of ASHRAE on May 5, 6 & 7, 1988. The Conference will be held at the Centre Plaza Holiday Inn in Fresno.

A Special Feature this year will be the technical Sessions on various aspects of VAV and designing for Smoke Control.

Many enjoyable activities are planned. Come prepared to enjoy golf, tennis, a Mariachi Band and Middle Eastern dancers. Make this a "must go" event, come and benefit the Society and yourself by attending this year's CRC or Technical Seminars.

Scholarship Committee Report

Recently on March 17, I attended the San Francisco Bay Area Science Fair with the

Know a Prospective New Member?

Contact Membership Chairman: Dan Vasquez-415/827-4040

Mail or Phone News to:

Lance Almon, Editor FOG DISPENSER Almon HVAC Sales 143 - 41st Avenue San Mateo, CA 94403 (415) 571-5857

COPY DEADLINE

In order to meet our publication dates, we have established the following as the last possible date, that copy for the FOG DISPENSER can be in the editor's hands:

Meeting date Copy deadline

May 5, 1988 April 20, 1988 June 5, 1988 May 18, 1988

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1987-1988 OFFICERS

Dart Rinefort President Sherman Brown ... President-Elect Gino Colacchia Secretary Tom Reinarts Treasurer

BOARD OF GOVERNORS

Barbara Dilts Frances Crisp Dave Rifkin

EMPLOYMENT OPPORTUNITY

Experienced Engineer wanted for pneumatic/electric temperature design. Small group environment utilizing CAD system equipment, with some job supervision and checkout required. Position involves sales backup with potential for career in Sales Engineering for the right individual. Send resumes to: Ms. Joan Sorlie, 2211 Palou Ave., San Francisco, CA 94124.



Fog Dispenser

GOLDEN GATE CHAPTER  ASHRAE

VOLUME XXVII No. 4

JANUARY 1988

MEETING NOTICEJANUARY PROGRAM

DATE: THURSDAY, JANUARY 7, 1988

SOCIAL HOUR: 5:30 PM

PRE-MEETING WORKSHOP: 5:45 PM

DINNER: 6:30 PM

LOCATION: ENGINEERS CLUB
160 SANSOME ST.
SAN FRANCISCO, CA
(415) 421-3184

NOTE: RESERVATION CARDS MUST BE RECEIVED NO LATER THAN TUESDAY, JANUARY 5TH. IF YOUR PLANS CHANGE PLEASE CALL THE ENGINEERS CLUB (415-421-3184) OR SHERMAN BROWN AT TEMPCO (415-467-8680) NO LATER THAN NOON OF THE MEETING DATE.

January's subject will be the technological advances in refrigeration compressors. Specifically, the scroll compressor and the screw compressor will be discussed.

Brad Bacon of the Trane Co. in La Crosse, WI will present the new Trane scroll compressor.

Larry Auletta will present the Bohn-Hitachi screw compressor used with Bohn applications.

An open discussion will follow this panel presentation.

** PRE-MEETING WORKSHOP (5:45 PM):

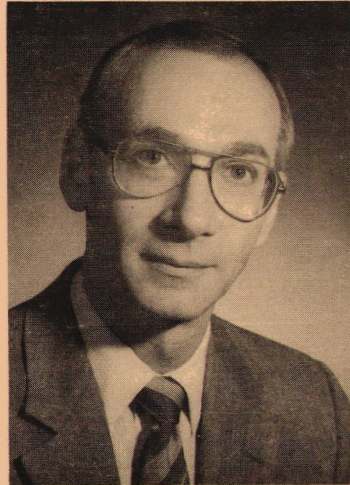
Subject: Solids-from-liquids filtration systems. Presentation by Peter Hartdegen Co.

HONOR ROLL

MARION, CERBATOS, AND TOMASI
Electrical and Mechanical Engineers

AL MARION
DICK CERBATOS
IVAN TOMASI
JAKE HOWARD
DICK YOUNG

PRESIDENT'S MESSAGE



In this Holiday Season, the Board wishes all of you a Very Merry Christmas and a prosperous and healthy New Year.

The coming year will be busy with ASHRAE events that are in various states of planning. Dan Barrango and his committee have been hard at work lining up speakers for the Controls Seminar scheduled for April including Roger Haines, the well published specialist who has written for Heating/Piping/Air Conditioning magazine for years. The format of the seminar will change slightly to include workshop sessions as well as the general lecture type presentations.

The scholarship committee headed by Bruce Montgomery will have a draft of a new scholarship program ready for the membership's review sometime in the early spring.

Dan Vasquez and his membership committee are planning a student night as a part of one of our spring meetings. Our chapter has

over 120 "official" student members. Special recognition is needed to keep them interested in our chapter activities and it is our plan to make this special event.

And for those of you who signed up a new member at the December meeting, be sure to attend and pick up your "reward" at the January meeting.

If you are planning to attend the Winter meeting in Dallas, Texas this next month, try to attend the award ceremony on Sunday, January 31st where our own chapter member, Tom White will be recognized with a special award.

Have a wonderful holiday. See you at the January meeting

Dart Rinefort, President

MINUTES OF THE DECEMBER MEETING

12/3/87 meeting; 102 attendees.

- 1. Chapter President, Dart Rinefort, opened the meeting with self introductions at 7:25 P.M.
2. Meeting minutes were approved for the October and November meetings.
3. Paul Robinson gave an update on the Code Committee's work involving Smoke Management.

The 1981 Uniform Building Codes will include a new chapter on Smoke Management. Paul distributed preliminary copies of the draft for the new Code Chapter and requested comments be given to him from our membership.

- 4. Dave Rifkin gave a report of the successful ASPE/ASHRAE Product Show. When all bills are paid, it is expected that the

ASHRAE income will be approximately \$4,000. 5. Dave also awarded ASHRAE Life Membership certificates. The requirements include a minimum of 25 yrs of membership and 60 years of age. Our members include Norris Nelson, Cameron Malcolm, Bob Phillips, Richard Emerson, Maurice Lax, Jack Kniveton, Al Lowrey and George Aronovsky. Chapter dues are waived for Life Members.

6. A moment of silent prayer was given for Joe Beck, who passed away last month. Joe was a Life Member of our chapter. Our regrets to his family and friends.

7. Steve Taylor commented on revisions to Title 24 Forms which can now be used to simplify load calcs. Contact Steve at Linford Engineering for additional information.

8. Tom Gilbertson commented on the Society's need for research funds. Tom requested financial contributions for ASHRAE research. Tom requested any ideas that we have on research topics be given to him for Society's review.

9. Dart Rinefort explained the new Golden Gate Chapter Scholarship Annuity Fund that has been established. The fund has approximately \$5,000 in it. Our existing Cal Poly Workshop will remain as is. The scholarship committee, headed by Bruce Montgomery, will establish a method of distribution for the scholarship annuity fund. It is the desire of the our board to make the scholarships available to local students whose interests are in HVAC&R. Possibly Cal Berkeley or San Francisco State are candidates for us to establish student chapter memberships and can participate in our local chapter. A number of members voiced their opinion of our local Universities that do not support the ASHRAE Society. After much discussion, we were challenged to influence the mechanical engineering department heads of our local universities to the benefits of the ASHRAE Society and the contributions made to our country by our Society's research. Any member willing to help our educational committee strengthen our relationship with the local universities is encouraged. Please contact Gary Harbison to get involved. 10. Membership committee Chairman, Dan Vasquez, encouraged us to sign up new members. One bottle of wine will be given to the person signing up a new member. Our speaker, Gary Berlin from NORTECH Industries, spoke on the subject of Humidification for Commercial Buildings. Gary is active on various committees at the Society level involving humidification

research. Case studies were reviewed involving humidification problems due to low and high humidification. We were challenged to consider humidification control for every commercial project. Humidification has a direct influence on our health. Low humidity caused by de-humidification in HVAC systems has caused poor health condition in the work place. The U.S. Government has now enacted a design standard called "Policies and Procedures for Control of Indoor Air Quality". This manual may be used by legal counsel as "existing technology", even though current codes do not require humidification control in all commercial buildings. You may contact Sherman Brown for information regarding acquiring a copy of this manual.

12. The meeting adjourned at approximately 9:30 P.M.

CSI PRODUCT EXPO

The fourth annual East Bay/Oakland, CSI (Construction Specifications Institute) Product Exposition will be held on Tuesday, february 9, 1988 from 3:30-7:30 p.m., at the Oakland Convention Center, West Exhibit all, 10th Street and Broadway, Downtown Oakland. Admission is free and includes aa complimentary buffet, door prizes and a no host bar.

More than 100 exhibits will be displayed. the latest products will be introduced and demonstrations of construction techniques will be performed. As a sspecial feature, this year's Product Expo will feature the Industry's Product Associations.

For further information contact Jo Lynn Mull, C/O The Dahlin Group. (415) 837-8286.

RAFFLE SPONSORS

Donations for December's raffle were provided by Glumac & Associates, Tempco Equipment Co., Western Plumbing & Heating, Inc. and G.J. Yamas Company.

NEW MEMBERS

Richard McClure, Pacific Tech Services
Michael Green, Charles & Braun

Know a Prospective New Member?

Contact Membership Chairman: Dan Vasquez-415/827-4040

Mail or Phone News to: Lance Almon, Editor FOG DISPENSER Almon HVAC Sales 143 - 41st Avenue San Mateo, CA 94403 (415) 571-5857

COPY DEADLINE

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Table with 2 columns: Meeting date, Copy deadline. Rows include February 4, 1988; March 3, 1988; April 7, 1988; May 5, 1988; June 5, 1988 and January 20, 1988; February 17, 1988; March 23, 1988; April 20, 1988; May 18, 1988.

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Sherman Brown ... President-Elect
Gino Colacchia Secretary
Tom Reinarts Treasurer

BOARD OF GOVERNORS

- Barbara Dilts Frances Crisp
Dave Rifkin

HVAC UC EXTENSION COURSE CERTIFICATES

The following individuals either have received or are eligible to receive Certificates of Accomplishment for their study of HVAC&R with the UC Berkeley Extension:

- Rakesh Kamfoj, Neal D. Novotny, Marc S. Smith, Jose P. Mijores, D.H. Cheathorn, Affas Garakani, Robert K. Mattsson, Thomas F. Price, Glen S. Zumwalt and Liang-Jiann Shik.

ERRATA (FROM TOM WHITE)

In the January issue of the Fog Dispenser, eight members of the Golden Gate Chapter were awarded Life Membership Certificates. The meeting minutes noted "Requirements include a minimum of 25 years of membership and 60 years of age". This is not correct since Section 2.5 of the Society's by-laws reads:

Section 2.5 Life Member, Life Associate Member or Life Affiliate. Each shall be a member who has been a Full Member, an Associate Member, or an Affiliate in good standing for an accumulative total of thirty (30) years, and who has attained the age of sixty-five (65) years. The member shall retain all the rights and priveleges of the most recent membership grade. The member shall not be required to pay any annual dues or other fees.

The incorrect lower age and membership requirements raised the eyebrows of some of the 'Younger Oldsters' who wondered if they had been overlooked.

NEW MEMBERS

- Ronald Behnk, Jr. - Aladdin Heating
Stan Boghosian - Skidmore, Owings & Merrill
Mario Capitelli - CMI
Glenn Cass - Syska & Hennessy
Dennis Crump - The Lurie Company
David Day - G.J. Yamas Company
Geoffrey DuBois - Acco
Billy Gee - Linford Service Company
Jim Harrington - Aladdin Heating
Marie Hoch - Air Filter Sales
Mark Hydeman
Glen Leggoe - Tempco Equipment Company
Shariar Makarechi - Bentley Engineering
Marie Madden - Linford Engineering

- Mathew Muniz - Trans-Dyn Controls Inc.
James Owens - CMI
Angie Palazzolo - Linford Engineering
Gregory Ritchie - United McGill Corp.
Alexander Stromberg - Guttman & MacRitchie
David Steffen - Winzler & Kelly
Ben Venktash - Linford Service Company

EMPLOYMENT OPPORTUNITIES

Mechanical/Environmental Engineers: DeLima Associates, a management consulting firm in the S.F. Bay Area is seeking engineers to conduct technical, economic and market evaluations of advanced HVAC equipment.

Candidates must have: Minimum of B.S. Degree and 2 years of building load modeling experience and excellent written/verbal communication skills. Equipment testing and market research experience is preferred. We offer competitive benefits/salaries. Please send resume and salary history to: Ms. E. Rockefeller-MacArthur, DeLima Associates, 4340 Redwood Highway, Suite 222, San Rafael, CA 94903

Mechanical Engineer wanted for small design firm in Sonoma County. 5 years experience in HVAC design and project management, and California Registration required. Send resume and salry requirements to: Engineers, P.O. Box 376, Sebastopol, CA 95473.

Outside Sales Engineer wanted, experienced in calling on engineers and contractors in the HVAC field. Call or send resume to: Gerry Yaffe, Tempco, P.O. Box 400, Brisbane, CA 94005, (415) 467-8680.

FOR SALE

PERSONAL COMPUTER: COMPAQ PORTABLE II WITH 80286 CPU AT 8 MHZ. IBM AT TYPE COMPATIBLE. EXPANDABLE TO NEARLY ANY REQUIREMENT. CURRENT CONFIGURATION: 256K RAM, (1) 360K FLOPPY, PARALLEL PORT AND RS-232C PORT. WILL ACCEPT HARD DISKS AND UP TO 4.1 MBYTES RAM. TEST USE ONLY!! AS NEW!! \$1250 (CHEAP!!) CALL LANCE ALMON, (415) 571-5857



VOLUME XXVII No. 5

FEBRUARY 1988

MEETING NOTICE

DATE: THURSDAY, FEBRUARY 4, 1988
SOCIAL HOUR: 5:30 PM
** PRE-MEETING WORKSHOP: 5:45 PM
DINNER: 6:30 PM
LOCATION: ENGINEERS CLUB 94104
160 SANSOME ST.
SAN FRANCISCO, CA
(415) 421-3184

Handwritten notes: 90, 94 attendees, Library 17th

FEBRUARY PROGRAM

Dr. Art Rosenseld, Professor of Physics with Lawrence Berkeley Lab will discuss reserch projects presently in progress at LBL. He will emphasize how they improved building energy efficiency to save the United States \$150 billion per year.

Also, Dr. David Grimsrud will present research on Indoor Air Quality. Details on ASHRAE Standard 62 will be presented.

***** RESERVATION CARDS MUST BE RECEIVED BY SHERMAN BROWN (VIA MAIL OR FAX) NO LATER THAN TUESDAY, FEBRUARY 2ND. IF YOUR PLANS CHANGE, PLEASE ADVISE THE ENGINEERS CLUB OR SHERMAN BROWN AT PRIME AIR. NO LATER THAN NOON OF THE MEETING DATE. ENGINEERS CLUB: (415) 421-3184 PRIME AIR: VOICE (415) 348-0555 FAX (415) 579-7880

Pre-meeting workshop (5:45 PM): Subject: ASHRAE video tape entitled Technology and the Human Destiny

HONOR ROLL

MONTGOMERY & ROBERTS

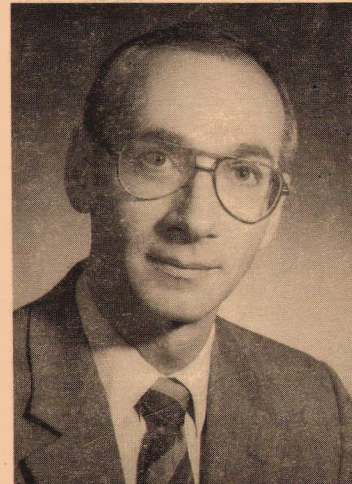
CONSULTING ENGINEERS

11090 SAN PABLO AVENUE
EL CERRITO, CALIFORNIA 94530

- BOB MONTGOMERY
ROD ROBERTS
BOB JUDD

- RICH WELLS
BOB ROOS

PRESIDENT'S MESSAGE



The Winter meeting in Dallas starts January 30th. If you are going, please be sure to attend the Plenary Session on Saturday at 3:30 P.M.. Not only will it be interesting to hear the keynote speaker, astronaut Colonel Robert Overmyer, but even more importantly, our own chapter member, Mr. Tom White, will receive special recognition. The exposition should be outstanding this year with over 600 manufacturers being represented. And the Texas hospitality will be superb without a doubt. Y-all come! Another important ASHRAE event is coming up May 5, 6 & 7th in Fresno. Mark your calendars for the Region X Conference being hosted this year by the San Joaquin Chapter. The weather is usually at its best this time of the year in the valley and the conference should be fun and informative. Let's plan to have a good turnout from the Golden Gate Chapter.

The Research Promotion committee will be

contacting you soon for your donation. If each chapter member gave only \$10 we would raise close to \$5000 for this important effort. Chairman Tom Gilbertson will also be after corporate donations. The large companies benefit directly from ASHRAE research through improved indoor air quality, energy conservation and a better environment. They need to be convinced that their investment in this worthy cause will result in future benefits to them. Please help Tom spread this important message.

I will be submitting a nominating committee slate for your approval at the February meeting. This committee is responsible for the important task of selecting candidates for the Chapter Officers and the Board of Governors for the next year. Elections will be held at the April meeting.

We have another outstanding program scheduled for our February meeting. I look forward to seeing you there.

Dart Rinefort, President

MINUTES OF THE JANUARY MEETING

1/7/88 meeting; 117 attendees.

- 1. Meeting opened at 7:58, by President Dart Rinefort, with self introductions.
2. Dart advised that due to a printing conflict, the rosters have been delayed from being issued, however, they will be released the end of January.
3. This year's CRC will be held in Fresno, California; all are invited to attend.
4. This year's Society Winter meeting will

be held in Dallas beginning January 31, 1988. Our chapter's historian, Mr. Tom White, will receive a special award during the Dallas meeting. If you plan to attend, please contact Dart Rinefort, as soon as possible.

- 5. Bob Montgomery has volunteered to help any chapter member who plans to turn in a technical paper.
6. Dan Vasquez distributed gifts to members that signed up new members for last year.
7. Don Bryant presented certificates for students that have completed the HVAC courses provided by UC Extension. Eleven students were present to receive their certificates. We congratulate each one.
8. Sherman Brown introduced the guest speakers - Mr. Larry Auletta, Sales Manager for the Bohn-Hitachi screw compressor and Brad Barton of the Trane Company. Larry spoke of the new technologies developed by Hitachi with regards to their screw compressor. Bohn represents Hitachi in this country. Larry reported that while the screw compressor has been used in the HVAC marketplace in this country since 1970, the new technologies available today have made the screw compressor one of the compressors for the future with its highly efficient and long life characteristics.
Brad reviewed the new Trane scroll compressor. The scroll compressor was first developed in the 1800's. Modern technologies have now allowed for its production due to computerized machining. The compressor has the least number of moving parts of any other compressor in the world. The compressor is currently available in small tonnage capacities with future development currently underway by the Trane Company for larger units. The 10-ton compressor can be arranged in parallel circuiting for additional capacities and capacity reduction. Due to its minimum number of moving parts, the compressor is inexpensive to manufacture while providing a very efficient design.
9. The meeting adjourned at 9:45 P.M.

CSI PRODUCT EXPO

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For further information contact Jo Lynn Mull, C/O The Dahlin Group, (415) 837-8286.

PG&E INCENTIVES PROGRAMS

PG&E has a number of incentive programs which may be useful for a variety of projects.
* The customized Gas and Customized Electric Programs provide incentives for the retrofit of equipment or systems in order to increase efficiency and conserve energy.
* The Thermal Energy Storage Program offers \$200/KW that's shifted to off-peak times in both new and existing buildings.
* The Advanced Technology Program encourages new electric or gas equipment or processes which demonstrate the latest advances in technology.

Other programs include Architectural and Security Lighting, Refrigerated Case and Direct Rebate Programs.

Funds are still available for 1988 but the deadline for most programs is April 30. Call your PG&E Representative for more details.

\$500 REWARD !!

You can help the Golden Gate Chapter win a \$500 reward at the Region X CRC in May. All you have to do is be the first to identify the oldest operating refrigeration compressor in Region X. This is the second year of the contest. Last year the San Joaquin Chapter won by locating the first fully air conditioned building in California, the Patterson Building in downtown Fresno.

Search your memories; ask your friends. If you think you know the winner, call Barbara Dilts for details on the needed documentation. Help Golden Gate win the \$500 Reward.

Know a Prospective New Member?

Contact Membership Chairman: Dan Vasquez - 415/827-4040

Mail or Phone News to: Lance Almon, Editor FOG DISPENSER Almon HVAC Sales 143 - 41st Avenue San Mateo, CA 94403 (415) 571-5857

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Sherman Brown ... President-Elect
Gino Colacchia Secretary
Tom Reinarts Treasurer

BOARD OF GOVERNORS

Barbara Dilts Frances Crisp
Dave Rifkin

member of our Society's Indoor Air Quality Committee, he has been instrumental in developing new standards. Major revisions are now established such as 15 CFM per occupant in commercial buildings. 13. The meeting adjourned at 9:35 P.M.

EDUCATION COMMITTEE REQUEST

The Education Committee requests that any member who takes a refresher course, a seminar or conference on related HVAC engineering topics send a copy of your attendance or registration to: Gary Harbison, Peter A. Hartdegen Company, 1475 Powell Street, #101, Emeryville, CA 94608. This will help our Chapter in its PADE points for education activities. Also, anyone who has given a speech, presentation or paper please let Gary know.

RAFFLE SPONSORS

Prizes for the Raffle at the January meeting were provided by ACCO, Markus (Fafco Rep.), Landis & Gyr Powers and Lieb Gas Detection Systems.

WIN HAWAII TRIP FOR TWO

The Research Committees is happy to announce that it is sponsoring a drawing for a free trip to Hawaii for two for all members contributing \$100 or more to the research fund by May 1st. The drawing will be held at the June 2nd chapter meeting. Individual must be present to win. Further information will be announced at the March Chapter meeting.

The Research Committee will also be actively seeking contributions this year from trade organizations as well as Bay Area Fortune 500 corporations.

If you can help, please contact Tom Gilbertson, Chairman, for further information - 376-5843.

Outoff May 1st

SAMPLE BALLOT

(For Election 6/1/88; sample only!)

President-Elect: Gino Colacchia
Secretary: Tom Reinarts
Treasurer: Barbara Dilts
Incoming Board Member: Steve Taylor

Note: Dart Rinefort is automatically elected Past President, Sherman Brown is automatically elected President and Fran Crisp automatically advances to Senior Board Member.

NEW MEMBERS

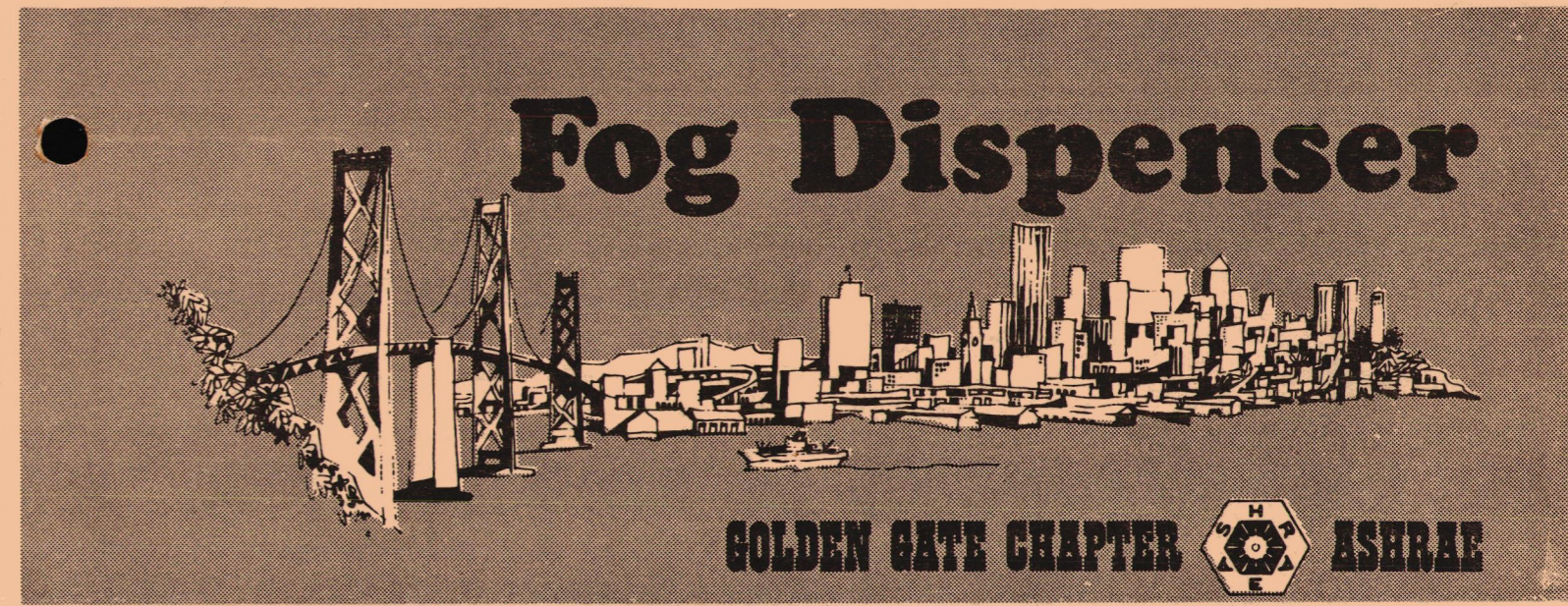
Mike Aubin, Asmani & Associates
Surinder Brar, ESI Engineering Services
John Enghardt, Liebert Associates
John Kosanovich, E.B. Ward Company
Eric Morey, Margaux Refrigeration

OBITUARIES

Erroll Fanning died 1/20. When he retired he was President of Atlas Heating & Ventilating Co. of San Francisco. Donations may be sent to the Salvation Army with the request that Mrs. Fanning be advised of contributions at 348 Deer Hollow, Napa, CA 94558.

Edward W. Simons died 2/11 at age 84. He was a Past President of ASHRAE (National), and the holder of several patents, principally related to the frozed food industry. He is survived by his wife, Lucy and four sons. Donations may be sent to the Episcopal Church of Our Savior, 10 Old Mill Street, Mill Valley, CA 94941.

Mike Rubio



VOLUME XXVII No. 6

MARCH 1988

MEETING NOTICE

MARCH PROGRAM

DATE: THURSDAY, MARCH 3, 1988
SOCIAL HOUR: 5:30 PM
DINNER: 6:30 PM
LOCATION: ENGINEERS CLUB
160 SANSOME ST.
SAN FRANCISCO, CA
(415) 421-3184

Kevin Cunningham, Product Manager for Electric Controls for Landis and Gyr Powers will present excerpts from the Symposium paper (given at the ASHRAE show in Dallas) entitled DDC Room Controllers and their use in Laboratory Applications.

***** RESERVATION CARDS MUST BE RECEIVED BY SHERMAN BROWN (VIA MAIL OR FAX) NO LATER THAN TUESDAY, MARCH 1ST. IF YOUR PLANS CHANGE, PLEASE ADVISE THE ENGINEERS CLUB OR SHERMAN BROWN AT PRIME AIR NO LATER THAN NOON OF THE MEETING DATE.
ENGINEERS CLUB: (415) 421-3184
PRIME AIR: VOICE (415) 348-0555
FAX (415) 579-7880

- 1) Product mgr. DDC Box Controls
- 2) graduate of Milwaukee School of Engrs.
- 3) Been with Powersource 7 years.

Members of Chicago ASHRAE

HONOR ROLL

SHERYL ALMON
Gas & Electric Operations

BARBRA DILTS
Marketing

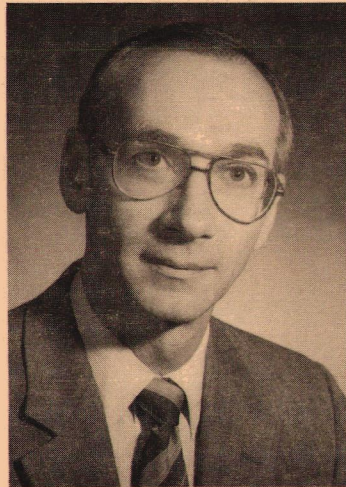
EDWARD BRADY
Civil Engineering

ROBERT MEYER
Steam Heating Systems

95 people



PRESIDENT'S MESSAGE



Well, we are in the final stretch now and just as with the Olympics, a strong spurt at the finish brings home the gold. All of the committees have been working like champions to complete their tasks for the year. The results will be reported at the upcoming CRC meeting in Fresno in May.

While the goal of our chapter is not to always win in the PADE contest with our other regional rivals, it does provide a measure of performance. Some of the goals that I set forth at the beginning of the year are not point winners from the point of view of the Society through the PADE process. Chapter commitments are not always in sync with Society goals. Yet each achievement provides a step towards building a stronger chapter which in turn strengthens the Society.

To give you some insight into the PADE process, to attain PAR on the point system, our chaapter must raise \$25 per assigned member (771) or \$19,275 for Research

Promotion. This is considerably more than this chapter has ever been able to raise. However, our chairman, Tom Gilbertson has a plan that just may lead us to an all time high in this category.

We must increase our assigned membership 5% or add 39 more people - a tough task for big chapters such as ours because typically we lose 70-80 people each year through transfers, delinquents and resignations. Just to stay even is a big challenge for Chairman Dan Vasquez. It takes assistance from the entire membership to attain an increase of significance. Let's all pitch in and help Dan in his race to the finish.

The education committee is well on its way to achieve PAR points for us this year. The premeeting tech workshops and excellent programs presented this year help in achieving the goals set forth by Society in the PADE contest.

In the Energy and Technical Activities area, our seminar on Controls coming up in April gives us points but we need some help from the chapter members reporting to us any liaison activities with government advisory boards, councils committees or governments. Also, if anyone has presented energy talks to professional or business groups or reviewed technical papers or handbooks, we need to know in order to count these activities towards the PADE point count. We fall short in this area of activity because we have not competed in the energy awards competition or so far had a formal peer review program to comment on technical papers or handbook chapters for the Society.

There are many members in our chapter who may not attend our monthly meetings on a regular basis but who nonetheless actively participate in society work in one way or

another. Please let us know who you are and what you are doing so we can appropriately recognize you for your efforts.

Regarding other matters, the chapter nominating committee will prepare a proposed slate of chapter board member candidates for 1988-89 for your approval at the March meeting. Additional nominations may be made from the floor during this meeting in accordance with the chapter by-laws. Please plan to attend this important meeting and participate in the process.

Our delegates to the CRC Region X conference in Fresno, Sherman Brown and Gino Colacchia must present nominees for regional offices and for special society awards. Please begin to think about who in our chapter should be included and pass on your thoughts to Sherm or Gino.

I still have one more Texas joke to share with you at our next meeting. Y'all come.

Dart Rinefort, President

MINUTES OF THE FEBRUARY MEETING

2/4/88 meeting; 94 attendees.

- 1. Meeting opened at 7:23 P.M. by President Dart Rinefort.
2. Preceding month's meeting minutes were approved.
3. The Board's selection for this year's nominating committee was unanimously approved by the Chapter members. Jim Taylor, Carl Jordan, Kevin Dowling, Jim Nemechek and Dart Rinefort shall serve on the nominating committee for this year.
4. President Rinefort gave a brief report of the winter meeting in Dallas. There were over 600 displays. Tom White was given an award from Society for having been an active member in ASHRAE for over 50 years. We appreciate Tom's service to our Golden Gate Chapter and to our Society for his leadership, dedication and enthusiasm. Dick Charles was nominated as a vice presidential candidate of our Society. It was noted that our Bay Area has over 30 people serving on the Society level in various committee positions.
5. Our Chapter's historian, Tom White, announced that this year's contest will be to locate the oldest operating compressor in Region X. Contact Tom White for additional information.
6. Our Board has purchased 100 ASHRAE pocket handbooks. They are for sale at \$8.00 each.

They will be available for purchase at each chapter meeting for your convenience. Please make your check out to Golden Gate Chapter ASHRAE.

7. Sherman Brown noted the seriousness of turning in dinner reservation cards promptly. Last month the Engineers Club charged our chapter for 11 dinners that were not served due to no shows. This becomes a loss to our Chapter's treasury. Please follow the simple rules:

- 1) Mail in your reservation card as soon as possible.
2) If you decide to cancel, immediately call Sherman Brown.
3) If you decide to go at the last minute, phone your reservation to Sherman Brown. Please help.
8. Frank Mayhew noted that this month will be the beginning of the UC Extension courses for controls and piping design. Classes begin at 7:00 P.M. Piping design on Mondays and Controls on Wednesdays. Last minute registrations will be accepted at the door. Contact Frank Mayhew or Don Bryant for additional information.
9. Dart Rinefort announced the recent death of Earl Fanning. Earl was a long standing member of our chapter and worked for Atlas Heating Company. A moment of silent prayer was observed. Our sincere regrets to Earl's family and friends.
10. Tom White gave a brief summary of this year's Dallas meeting. Tom noted that the Society's life members club now at 2400 members, donated \$1,000 to Cal Poly, San Luis Obispo, HVAC Engineering Department, Attention: Rod Keif.
11. Self introductions were made for members and guests.
12. Sherman Brown introduced the guest speakers, Dr. Art Rosenseld, Professor of Physics with Lawrence Berkeley Laboratories, and Dr. David Grimsrud also with LBL. Dr. Rosenseld spoke on the effects of Energy Conservation throughout our country with respect to other nations and how our energy regulations have helped reduce our consumption of energy in the United States. The various energy regulations throughout the country have helped to control the energy crisis. Since the 1970 crisis, we have held the consumption growth to a minimum while still expanding the gross national product, thanks to energy efficient commercial building designs. Energy is the single largest industry in the United States marketplace. Dr. Grimsrud spoke on his research involving indoor air quality. As a

Know a Prospective New Member?

Contact Membership Chairman: Dan Vasquez-415/827-4040

Mail or Phone News to: Lance Almon, Editor FOG DISPENSER Almon HVAC Sales 143 - 41ST Avenue San Mateo, CA 94403 (415) 571-5857

COPY DEADLINE

In order to meet our publication dates, we have established the following as the last possible date, that copy for the FOG DISPENSER can be in the editor's hands:

Table with 2 columns: Meeting date, Copy deadline. Rows: March 3, 1988; April 7, 1988; May 5, 1988; June 5, 1988; February 17, 1988; March 23, 1988; April 20, 1988; May 18, 1988

Published Monthly, October through June, by the Golden Gate Chapter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, c/o Duplicating Associates, 370 Brannan Street, San Francisco, CA 94107-Phone 495-4552

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



GOLDEN GATE CHAPTER

370 BRANNAN STREET, SAN FRANCISCO, CALIFORNIA 94107

415/495-4552

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San Francisco, CA 94111
(415) 398-7667

DEAR ASHRAE MEMBERS:

PRESIDENT-ELECT

SHERMAN BROWN
Tempco Equipment
PO Box 400
Brisbane, CA 94005
(415) 467-8680

I would like to thank those of you who have contributed to the **WORKSHIP PROGRAM** and **SCHOLARSHIP FUND** but we still need additional support from those of you who have not donated to our programs.

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You will receive a receipt for any contribution mailed to:

Bruce Montgomery, Scholarship Committee Chairman
Montgomery and Roberts Consulting Engineers
11090 San Pablo Ave.
El Cerrito, CA. 94530

purpose of awarding a junior high school and a senior high school student with a special award in the category of Physical Sciences and Engineering. This was very enjoyable diversion from the everyday world of engineering. There were numerous exhibits in the junior division that relate to our industry. Some were "How much heat does Clothing Absorb", Thermal Conductance of Materials" and "Is my House Drafty". The senior division had only one.

The project that was my choice to receive our award in the junior division was entitled Solar Energy/Ecology. This project was trying to determine if the color of light and ambient temperature have an effect on a solar cell. The project was created by Eddy C. Manti of St. Pivs School.

The senior division project was entitled Flow of Particle Solids III. This project studied why a Stand Pipe speeds flow. This project was created by Kathleen D. Earls of Pinole Valley High School.

Overall the quality of all the exhibits was very good and hopefully we will be part of next year's Science Fair and we can send a group of judges from our chapter.

Bruce Montgomery, Scholarship Committee Chairman

EDUCATION COMMITTEE REQUEST

Gary Harbison asks that any member that has participated in Society Professional Development Seminars or any UC Berkeley Extension courses contact him with the details for the purpose of compiling our chapter's PAOE points. Please call Gary at 415-653-7713 (Peter Hartdegen Co.).

RAFFLE SPONSORS

All prizes for the Raffle at the February meeting were provided by Landis & Gyr Powers.

Prizes for the Raffle at the March meeting were provided by the Brown Company, Laws & Associates, Cumali Consultation Bureau and Applied Air Filters.

CHAPTER TENNIS TOURNAMENT

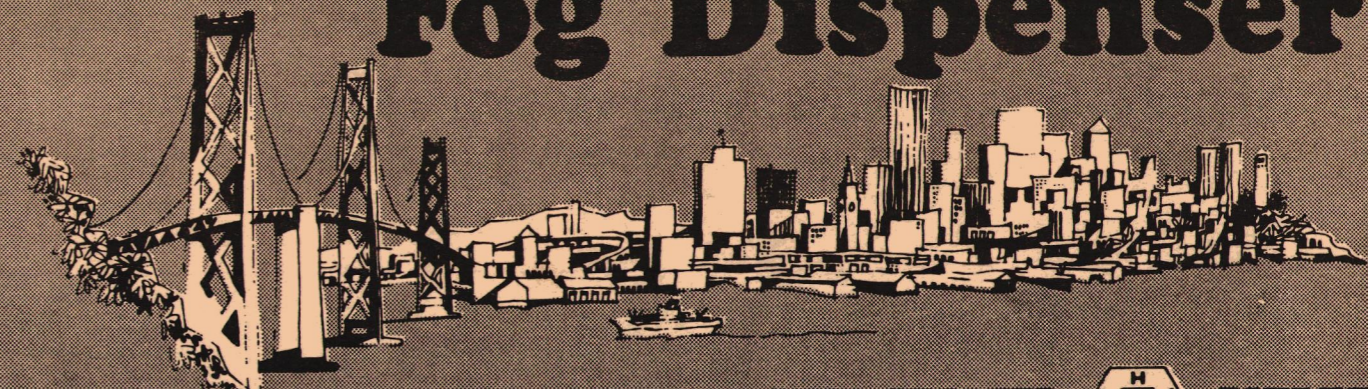
June 3rd, 1988 is the date for the chapter's annual tennis bash. Mark your

calendar and grease your tennis elbow! The location will be the San Francisco Tennis Club. More info. and entry application with the next Fog Dispenser.

EMPLOYMENT OPPORTUNITIES

Outside Sales Engineer wanted, experienced in calling on engineers and contractors in the HVAC field. Call or send resume to: Gerry Yaffe, Tempco, P.O. Box 400, Brisbane, CA 94005, (415) 467-8680.

Fog Dispenser



VOLUME XXVII No. 7

GOLDEN GATE CHAPTER



ASHRAE

1988

MEETING NOTICE

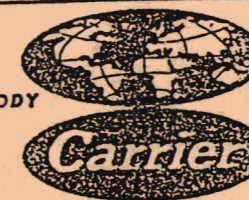
DATE: THURSDAY, APRIL 7, 1988
 SOCIAL HOUR: 5:30 PM
 ** PRE-MEETING WORKSHOP: 5:45 PM
 DINNER: 6:30 PM
 LOCATION: ENGINEERS CLUB, 160 SANSOME ST.,
 SAN FRANCISCO, CA, (415) 421-3184

SPECIAL NOTE: APRIL'S MEETING IS STUDENT NIGHT. MEMBERS ARE ENCOURAGED TO SPONSOR A STUDENT'S DINNER. RECOGNITION WILL BE GIVEN TO THOSE SPONSORING A STUDENT.

**** RESERVATION CARDS MUST BE RECEIVED BY SHERMAN BROWN (VIA MAIL OR FAX) NO LATER THAN TUESDAY, APRIL 5TH. FACULTY ADVISORS ARE REQUESTED TO CONTACT SHERMAN BROWN REGARDING THE NUMBER OF STUDENTS THAT WILL ATTEND. IF YOUR PLANS CHANGE, PLEASE ADVISE THE ENGINEERS CLUB OR SHERMAN BROWN AT PRIME AIR NO LATER THAN NOON OF THE MEETING DATE.
 ENGINEERS CLUB: (415) 421-3184
 PRIME AIR: VOICE (415) 348-0555
 FAX (415) 579-7880

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The program will discuss HVAC duct construction standards in the HVAC air duct leakage test manual by SMACNA. The presentation will be by Mr. John Stratton, Director of Technical Services for SMACNA.

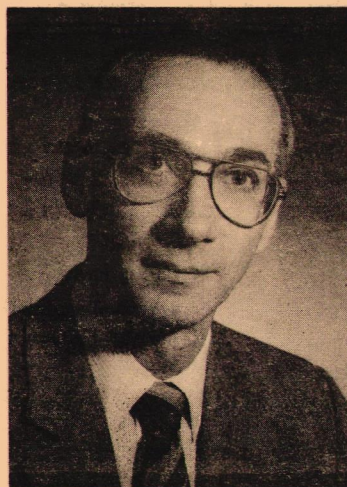
He will give an interesting slide program covering both metal and flex duct construction standards and methods. John has presented this material throughout the U.S. and it promises to be an interesting program.

PRE-MEETING WORKSHOP

ASHRAE video tape entitled Laboratory HVAC Systems will be shown at 5:45 P.M.

"OUR GOLDEN ANNIVERSARY"
 1938 - 1988

PRESIDENT'S MESSAGE



delighted with the enthusiastic and sincere interest he expressed in establishing a close bond between our organizations. I am very optimistic that we have found a Mechanical Engineering Department that we can nurture into a wonderful and meaningful relationship with our industry. I am anxious to introduce Ahmad and other key faculty members to the membership and hopefully they, with some of their students, will be able to attend our April student night meeting.

Bruce Montgomery, Scholarship Committee Chairman, participated in the judging and award of honors to junior high and high school students as a part of the Bay Area Science Fair competition held recently at the California Academy of Sciences, Golden Gate Park. Bruce will give you a complete report at our April chapter meeting. We are hopeful that the recipients of these awards will be able to attend our meeting and be recognized for their accomplishments.

The CRC conference is just around the corner (May 5th, 6th & 7th in Fresno) and I would like to encourage as many chapter members to attend as possible. This is the forum that gives the membership the opportunity to provide the Society with their ideas and suggestions for change. As you may have noted in the latest edition of ASHRAE INSIGHTS, significant Bylaw changes were made recently in the requirements for membership. These and other changes are the result of input at the CRC meetings from the membership. If you have suggestions that you believe should be presented for consideration, please contact Gino Colacchia or Sherman Brown, our CRC Region X delegates.

The April Chapter meeting is our annual

Our April meeting is the annual student night for our chapter and we ask for sponsors to host the meal costs for our student guests. Please contact Gary Harbison or any of the officers if you would be willing to purchase a dinner for one of our guest students.

One of my stated goals at the beginning of the year was to try to establish an active student chapter in our area. Our contact with UCB is in an inactive state at best and try as we have we've been unsuccessful in developing faculty interest in sustaining an active student chapter there. However, Gary has been talking with some of the faculty at San Francisco State University exploring their interest in developing an association with the Golden Gate chapter with the long term goal of opening a student chapter there. Gary and I had lunch with Ahmad Ganji, Associate Professor in the newly created Mechanical Engineering division recently and were

election night. Please be sure to either mail in the ballot included with this mailing of the Fog Dispenser or bring it with you to the meeting so that the nominating committee can report the final election results.

Please be sure to sign up for the Controls Seminar, April 13th. Dan Barrango and Steve Guttmann have done an outstanding job in lining up some of the best talent in the field to make this an event you can't afford to miss.

See you at the April meeting. Please lend a hand in sponsoring a student guest for the evening.

Dart Rinefort, President

MINUTES OF THE MARCH MEETING

3/3/88 meeting; 93 attendees.

- 1. Meeting opened at 7:35 P.M. with self introductions.
2. President Dart Rinefort listed the Board members nominated for next year's Board positions. Sherman Brown - President, Gino Colacchia - President Elect, Tom Reinarts - Secretary, Barbara Dilts - Treasurer, Fran Crisp - Board Member, Dart Rinefort - Board Member, Steve Taylor - Incoming Board Member. A vote was taken for approval of the nominees. All listed were approved. No additional names were submitted from the floor as nominees.
3. The February meeting minutes were approved.
4. Due to the CRC Convention in Fresno, May 5-7, the Board agreed to postpone the standard monthly chapter meeting by one week. Therefore, the May meeting is scheduled for Thursday, May 12, 1988.
5. Honors and awards nominations for personal Society awards are requested from the membership. All nominations must be accompanied by a current detailed biographical record along with a letter of recommendation describing the candidates' qualifications. Gene Valerio and Jack Kniveton have volunteered to help the candidates complete the bio forms. The forms must be completed and turned in to any board member in time for submission to the CRC in May. We request these forms be submitted to the Board immediately.
6. Tom Gilbertson, Research Committee Chairman, requested that all donations to ASHRAE Research be received no later than

May 1, 1988. This year a special program has been arranged so that any one personal contribution of \$100 or more will be eligible to win a trip for two to Hawaii. The contributions made by private individuals will be eligible for the drawing.

7. Dan Barrango discussed this year's coming seminar to be held Wednesday, April 13, 1988, at the PG&E auditorium, San Francisco. The seminar topic is "Controls". The advance registration is \$120. Please contact Dan Barrango at 326-9115 or Steve Guttmann at 775-0903 for additional information.

8. Lucy Santos was honored with a special award for her outstanding service and dedication to the Golden Gate Chapter of ASHRAE.

9. The program began at 8:24. Kevin Cunningham, Product Manager for Electric Controls for Landis and Gyr Powers, presented applications for direct digital controls incorporated into laboratory applications. The Direct Digital electronic control approach offers an excellent method of controlling laboratory air flows. With the new regulating codes, such as OSHA, proper air flow and laboratory hoods have become a critical design function in all laboratory operations since an immediate danger to an occupant is present should air flows go uncontrolled and unbalanced.

The meeting adjourned at 9:30 P.M.

1988 CRC - PLAN NOW FOR A GREAT TIME

The 1988 Chapters Regional Conference (CRC) will be Hosted by the San Joaquin Chapter of ASHRAE on May 5, 6 & 7, 1988. The Conference will be held at the Centre Plaza Holiday Inn in Fresno.

A Special Feature this year will be the technical Sessions on various aspects of VAV and designing for Smoke Control.

Many enjoyable activities are planned. Come prepared to enjoy golf, tennis, a Mariachi Band and Middle Eastern dancers. Make this a "must go" event, come and benefit the Society and yourself by attending this year's CRC or Technical Seminars.

Scholarship Committee Report

Recently on March 17, I attended the San Francisco Bay Area Science Fair with the

Know a Prospective New Member?

Contact Membership Chairman: Dan Vasquez - 415/827-4040

Mail or Phone News to:

Lance Almon, Editor FOG DISPENSER Almon HVAC Sales 143 - 41st Avenue San Mateo, CA 94403 (415) 571-5857

COPY DEADLINE

In order to meet our publication dates, we have established the following as the last possible date, that copy for the FOG DISPENSER can be in the editor's hands:

Meeting date Copy deadline

May 5, 1988 April 20, 1988 June 5, 1988 May 18, 1988

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1987-1988 OFFICERS

Dart Rinefort President Sherman Brown ... President-Elect Gino Colacchia Secretary Tom Reinarts Treasurer

BOARD OF GOVERNORS

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CRC AGENDA

Thursday May 5

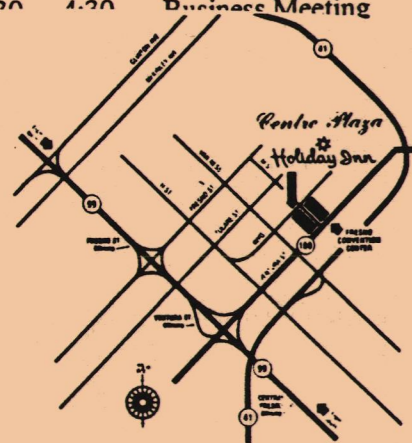
- 12:00 - 4:00 Golf Tournament
- 12:00 - 4:00 Tennis Tournament
- 5:00 - 6:00 Delegates Pre-Caucus Meeting
(Please Make Your Own Dinner Plans)
- 6:00 - 7:30 Welcome Party
Hosted for Registrants with Entertainment

Friday May 6

- 7:00 - 8:30 Delegates' Breakfast
- 8:30 - 1:00 Companion Activity
- 8:30 - 12:00 General Session
- 12:00 - 1:00 President's Lunch
- 1:30 - 4:30 Workshops
1. Chapter Operations/Historian
2. Membership
3. "R" in ASHRAE (TES Tour)
- 6:30 Cocktails (No Host)
- 7:45 - 10:30 Awards Banquet

Saturday May 7

- 7:00 - 8:30 Delegates' Breakfast
- 8:30 - 12:00 Companion Activity
- 8:30 - 12:00 Workshops
1. Energy Management
2. Education
- 12:00 - 1:30 Lunch (On Your Own)
- 1:30 - 4:30 Business Meeting



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TECHNICAL SEMINAR:

Five distinguished members of ASHRAE have prepared outstanding papers dedicated to bringing all who attend to the leading edge of the technology of variable air volume systems so widely applied in modern heating and air conditioning design.

We feel that all who attend will want to take advantage of this unique opportunity.

The times, speakers, and subjects are listed below:

May 6.	8:30 A.M., Pierre Abou-Zeid, Krueger Manufacturing	"Direct Digitized Control of Variable Air Volume"
	10:00 A.M.	Coffee Break
	10:30 A.M., Pierre Abou-Zeid	"Pressurization For Laboratories"
	1:30 P.M., Michael E. Dillon, Robert M. Young & Associates	"Designing for Smoke Control"
	3:00 P.M.	Break
	3:30 P.M.	"Designing for Smoke Control" continued
May 7,	8:30 A.M., Daniel Int-Hout, Chief Engineer for Research and Development, Environmental Technologies, Inc.	"Room Air Distribution, Diffuser Selection, Acoustics and Box Selections"
	10:00 A.M.	Coffee Break
	10:30 A.M. Daniel Int-Hout	Morning Subject continued
	1:30 P.M. Richard G. Crane, Director, Systems Group, Anemostat	"Pressurization Control Through Flow Tracking: A Comparison of Pneumatic to DDC"
	3:30 P.M.	Break
	4:00 P.M. Victor A. Neuman, Lab Consultant and Mechanical Engineer, Earl Walls Associates	"Variable Volume Fume Hoods in Laboratories"

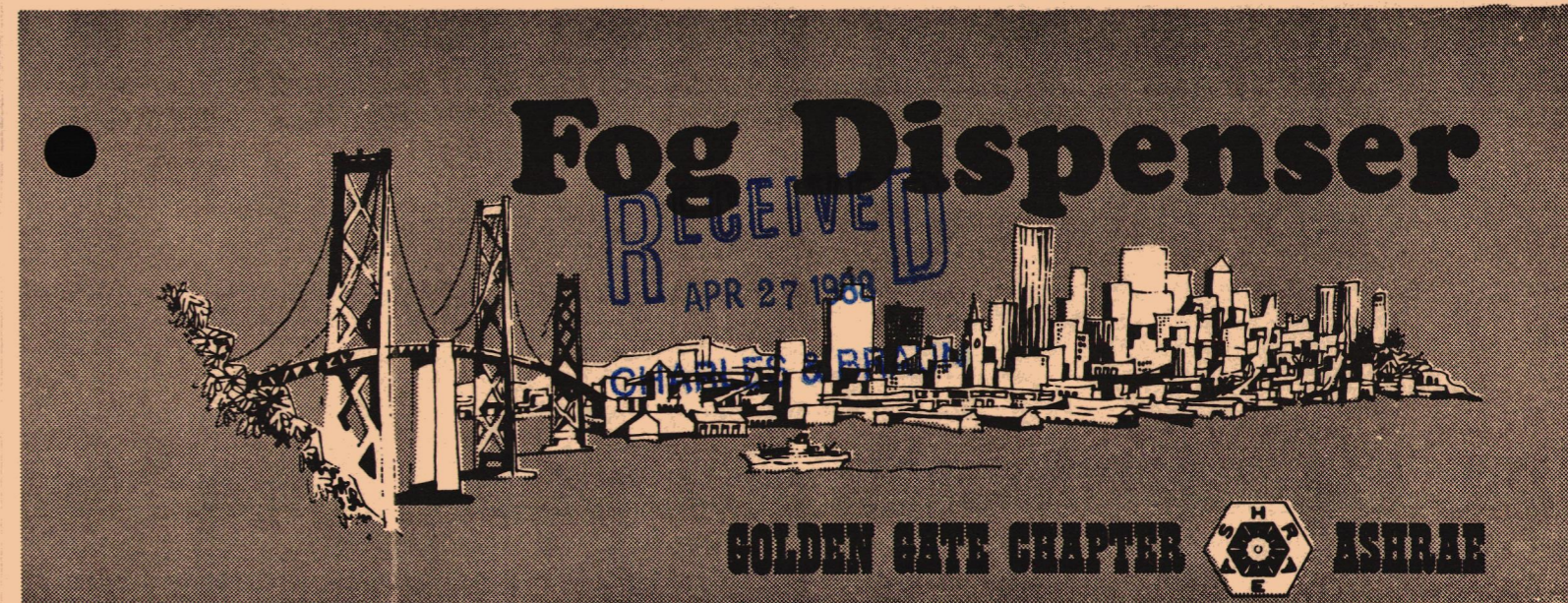
The cost of the Seminar is included in the registration fee for those who register for the conference.

For those who attend only the Seminar, the cost is listed below:

	Registration Fee	Registration Fee
	Before April 1	After April 1
Members of ASHRAE	\$55.00	\$65.00
Non-Members of ASHRAE	\$70.00	\$80.00

Make checks payable to ASHRAE and mail to:
Robert Crozier
330 E. Griffith Way
Fresno, CA 93704

See you there!



VOLUME XXVII No. 8

MAY 1988

MEETING NOTICE

DATE: THURSDAY, MAY 12, 1988
TIME: GATHER BETWEEN 6:00 & 6:30 P.M.
PLACE: HILTON HOTEL, YOSEMITE ROOM,
333 O'FARRELL ST., SAN FRANCISCO.

MAY FIELD TRIP

The May field trip will be a thirty minute plant tour of PG&E's steam facility at 465 Stevenson St. in San Francisco.

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Pete Johnson
Sam Yamauchi

Darrell Lackey

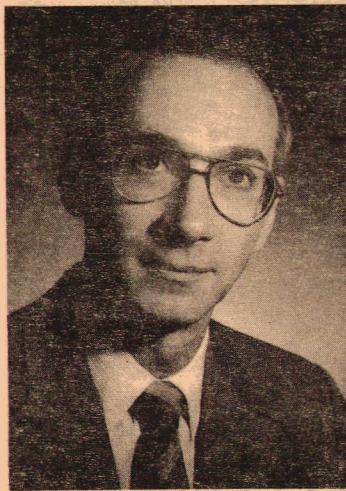
SEMINAR

San Jose Chapter is sponsoring a 1/2 day seminar on "Energy Upgrades of Existing Buildings" on Saturday, May 7th, Hewlett Packard Bldg. #48, Cupertino.
Fee: \$45 at the door.
Call: Dave Eisenberg for more info.
(415) 655-3990

EMPLOYMENT

Plan Specification Assistant Manager.
If interested call Rich Frenzel at
(415) 873-1660 for further details.

PRESIDENT'S MESSAGE



Many of our members are heading for Fresno May 5, 6 and 7 to participate in the annual Region X CRC (Chapters' Regional Conference) and attend the Technical Seminar on VAV Systems which is being held coincidentally with the CRC meetings. What a wonderful way to benefit from attending the Seminar and still be able to listen to and participate in ASHRAE's planning activities for the next year at the Regional level. It is not too late to register. Please see further information elsewhere in this issue of the Fog Dispenser.

We have just concluded this year's annual seminar on controls and it was OUTSTANDING. For those of you who did not attend, you missed a superb presentation from one of the best in the business - Roger Haines. Additionally, workshops and lectures were presented by Steve Taylor, Dave Joiner, Alan Dakessian, Bill Chapman, Bill Schultz and Dennis Thompson from the Golden Gate Chapter. Many thanks to each of you for the

time and effort you put into these very professional presentations. I must admit I was somewhat skeptical when Dan Barrango suggested the idea of incorporating workshops to supplement the normal lecture type presentations traditionally done in the past. But I must say that this format was executed perfectly and proved to be extremely successful and will no doubt set the pattern for future seminars. Many, many thanks to Dan Barrango, Steve Guttmann, Bob Slakey, Magie Selig, Lance Almon and all the others that donated their time and talents to make this year's seminar such an outstanding success.

I was very pleased with the turnout of both students and professors from UC Berkeley and San Francisco State at our last chapter meeting. I'm excited about the possibility of establishing a student chapter at SF State this next year. The responses from professors Mamdouh Abo-El-Ata and Ahmad Ganji were very positive and I believe they are eager to have us support some of their programs and laboratory projects in turn. I received a very nice letter from Gail Schiller, assistant professor at UCB explaining in some detail the research she has been doing on indoor climate control and thermal comfort under an ASHRAE research grant. It is my hope that we can have her as guest speaker at one of our fall meetings to discuss her project and the process of obtaining ASHRAE research money.

REMINDER: The May chapter meeting has been postponed one week to allow for the CRC meeting in Fresno. Hope to see many of you in Fresno May 5, 6 and 7 and again at our field trip meeting on May 12th.

Dart Rinefort, President

MINUTES OF THE APRIL MEETING

4/7/88 meeting; 101 attendees including 10 student guests.

- 1. President Dart Rinefort opened the meeting with self introductions at 7:33 P.M.
2. Dart introduced the faculty members in attendance from San Francisco State University and UC Berkeley. Dart welcomed the student members and challenged them to be involved with the Golden Gate Chapter of ASHRAE.
3. The meeting minutes from the March meeting were approved as written.
4. Tom Gilbertson encouraged donations be made to ASHRAE Research. We were reminded that this year a special program has been arranged so that any one person contributing \$100 or more will be eligible to win a trip for two to Hawaii.
5. David Eisenberg announced (for the San Jose chapter) that they will conduct their seminar on Saturday, May 7. A flyer is now being sent in the mail.
6. Barbara Dilts announced the Golden Gate Chapter seminar on controls, which will be held April 13, 1988, one day, at the PG&E auditorium, in San Francisco. Advanced registration is \$120 or \$150 at the door.
7. Dart Rinefort acknowledged that the CRC Registration forms were not distributed to all Golden Gate Chapter members by the leadership of this year's CRC. A poll was taken of the members that did receive flyers which amounted to less than 10 people. Carl Jordan offered to copy his registration form to any member that so requested it from his office. This is a hardship on our Chapter since the registrations beyond April 1, 1988 are additional costs.
8. Dart Rinefort announced for Bruce Montgomery, that the scholarship program for the Golden Gate Chapter of ASHRAE has now developed a preliminary draft for the annuity fund which currently has approximately \$5,000. The annuity will be used for students scholarship. Students active in HVAC programs will be eligible. Bruce Montgomery's committee has now developed a rough draft for our Chapter to give input, shortly.
9. Dave Rifkin announced that the Golden Gate Chapter supported the Bay Area Science Fair by giving two awards to students for their award winning science projects.
10. The nominating committee, headed by Jim Nemechek, tallied the votes for next year's Board positions and made them known at the meeting.

- 11. The raffle was conducted at 8:20 P.M.
12. Our guest speaker, Mr. John Stranton from SMACNA spoke on the subject of duct leakage as established by the SMACNA Test Manual. John Stranton is the director of Technical Services for SMACNA. Duct testing procedures were discussed with respect to special classes established for duct pressures and leakage rates. It was stressed that the specifications should be written to identify within the bid documents what requirements will be necessary when testing ductwork. The SMACNA guide establishes classes for various pressures that should be identified within the bid documents.
13. The meeting adjourned at 9:38 P.M.

S.F. CODE UPDATE

"RETROACTIVE FIRE SPRINKLERS FOR HOTELS": "Better late than never: San Francisco Code Ruling No. HC-903-1 entitled "Hotel Sprinkler Ordinance 319-86" dated 10/22/87, clarifies certain sections of the San Francisco Building Code, The San Francisco Housing Code, and Hotel Sprinkler Ordinance 319-86. The Code Ruling and the Ordinance relate to requirements to add fire sprinklers in certain portions -- primarily public areas -- of existing hotels by specified dates. Because of the extent of the information covered by the four page Code Ruling and the nine page Ordinance, no attempt is made here to restate those requirements. Persons wishing more information should obtain copies of these documents from the City."

ADVERTISEMENTS

Inside Sales Engineer/Estimator - experienced in HVAC equipment selection, application and pricing. Will be responsible for takeoffs, bid preparation and "calling out" bids to Mechanical Contractors. Will involve some outside work servicing customers. Call or send resume to: Michael J. Rubio, Vice President, c/o G.J. Yamas Company, Inc., No. 1 South Linden Avenue, South San Francisco, CA 94080, (415) 589-8313.

FOR RENT - Drawing board and laytable with room for filing cabinets/credenza in architect's office at the Ferry Bldg. \$275 per month. Contact Joseph Atsus, A.I.A. at (415) 398-4840.

Know a Prospective New Member?

Contact Membership Chairman: Dan Vasquez - 415/827-4040

Mail or Phone News to: Lance Almon, Editor FOG DISPENSER Almon HVAC Sales 143 - 41st Avenue San Mateo, CA 94403 (415) 571-5857

COPY DEADLINE

In order to meet our publication dates, we have established the following as the last possible date, that copy for the FOG DISPENSER can be in the editor's hands:

Table with 2 columns: Meeting date, Copy deadline. Rows: April 7, 1988; May 5, 1988; June 5, 1988; April 20, 1988; May 18, 1988

Published Monthly, October through June, by the Golden Gate Chapter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, c/o Duplicating Associates, 370 Brannan Street, San Francisco, CA 94107 - Phone 495-4552

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In Memoriam: Robert B. Holland

1988 ASHRAE Handbook Published

Robert B. Holland, past president of the Golden Gate Chapter of ASHVE (1945-1946), passed away on May 3, 1988.

The 1988 Equipment Volume provides principles of operation, types of construction, performance characteristics, methods for testing and rating, pertinent standards, and factors for selection.

Bob Holland had a very successful career as an industrial refrigeration sales engineer for York Corporation in San Francisco, after which he started Robert B. Holland Company. He was a registered professional engineer and introduced Baltimore Aircoil to the West Coast. Bob is survived by Alice Holland, his wife of 65 years.

Remembrances may be sent in Bob's name to:

Mother Philomena
c/o Carmelite Monastery
27601 Highway 1
Carmel, California 93923



VOLUME XXVII No. 9

JUNE 1988

MEETING NOTICEJUNE PROGRAM

DATE: THURSDAY, JUNE 2, 1988
SOCIAL HOUR: 5:30 P.M.
DINNER: 6:30 P.M.
LOCATION: ENGINEERS' CLUB
160 SANSOME ST.
SAN FRANCISCO, CA
(415) 421-3184

Lucy Gill, a local consultant and teacher, will present "Creating the Ultimate Work Environment." With mutually beneficial goal selection, the company and the individual can work together to achieve more. We lag the Japanese in the business world and must now set out to be the BEST.

***** RESERVATION CARDS MUST BE RECEIVED BY SHERMAN BROWN (VIA MAIL OR FAX) NO LATER THAN TUESDAY, MAY 31.
IF YOUR PLANS CHANGE, PLEASE ADVISE THE ENGINEERS' CLUB OR SHERMAN BROWN AT PRIME AIR NO LATER THAN NOON OF THE MEETING DATE.
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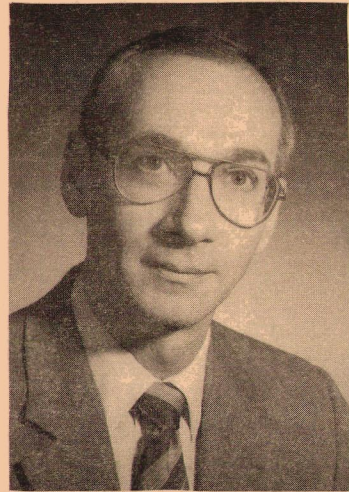
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This being my last president's message, I want to take the opportunity to acknowledge all the people behind the scenes that helped make this a successful year for the Chapter.

Sherman Brown did an outstanding job of lining up interesting programs this year which accounted for our fine meeting attendance record. Gino Colacchia has his work cut out for him next year trying to follow Sherman's lead.

John Lewis, Auditing Chairman, has completed his review of the books and reports that we are still legitimate and in the black. Paul Robinson and his Code Committee struggled through many long and tedious meetings, reviewing proposed changes to the Smoke Management provisions of the code.

Gary Harbison did a superb job of reactivating the student chapter interest and has us well on our way to chartering a new student chapter at S. F. State. The Energy Committee, under the direction of Tom Mc-

Kewan, is organizing a Title 24 seminar and reviewing a newly enacted Energy Ordinance by the City of San Francisco.

Lance Almon, our Fog Dispenser Editor, always managed to meet the publishing deadlines in spite of late copy arrivals and massive editing requirements. Tom White kept our Chapter history alive, sorting through boxes of new information received this year from recent past presidents.

Richard Frenzel earned over \$500 for the Chapter by pestering many firms for Honor Roll donations.

Dan Vasquez wore out his printer sending out letters and information to prospective new members and several pencils maintaining the bookkeeping chores. Dave Eisenberg came up with the most innovative raffle gifts yet and earned the Chapter nearly \$600 in the process.

Dan Barrango and Steve Guttman put together an outstanding seminar on controls and created the idea of interspersing workshops with lecture sessions, a format that will surely be followed in future years. Their hard work generated a profit for the chapter of over \$7000.

Dennis Thompson faithfully greeted members at each meeting and was always the last one to leave, waiting patiently for all to turn in their badges. Lucy Santos produced the Roster accurately and on time while in the middle of her struggle against adversity.

Tom Gilbertson initiated the "Hawaii Drawing" as an incentive to donate \$100 or more to the research fund, raising nearly \$6000 in member contributions, one of the all time highs for this Chapter. Carl Jordan kept up the pressure on City Hall to keep ASHRAE cur-

rent on code rulings and code issues.

Dave Rifkin organized the very successful Table Top Equipment show that netted the Chapter over \$4000. Rich Leao is matching the skills of our best tennis players in this year's tennis tournament.

Bruce Montgomery developed selection criteria for the student scholarship program that should begin in the spring of 1989 and presented awards to division winners in the Science Fair program for both junior and senior high school students.

Eric Johnson helped get the name of ASHRAE out in front of the public as Publicity Chairman. Bob Braun made sure that ASHRAE matters were properly voiced to the government agencies.

Major disbursements anticipated this year include a check to ASHRAE Research for \$7500, the CalPoly Workshop program for \$1500 and the Scholarship Annuity Fund for over \$1000.

Clearly, the Golden Gate Chapter is a special organization with many hardworking and dedicated members giving freely of their time and talent to keep the programs and activities moving throughout the year.

Please plan to come to the June meeting and help me recognize the many people that contributed so much to this year's success.

We will also be honoring the past presidents as well as offering special recognition to the Fellow members of the Chapter.

Most of all, thank you for the opportunity to serve this year as your president.

Dart Rinefort, President

Winter in Chicago

The 1989 ASHRAE Winter Meeting will be at the Palmer House Hotel in Chicago, Illinois, January 28 through February 1, 1989. Dig out your mittens and start making plans now.

ASHRAE Research HAWAII TRIP

You still have a chance to contribute to ASHRAE Research and WIN A TRIP TO HAWAII!! Every individual who contributes a minimum of \$100 to ASHRAE Research and comes to the June meeting has a chance to WIN.

Help support the valuable research of our Society, enjoy an evening with the folks of Golden Gate Chapter AND maybe win transportation to Hawaii and lodging for a week.

The odds are still VERY good, so bring your checkbook to the meeting!

Title 24 Software Fair

The California Association of Building Energy Consultants (CABEC) is holding a Title 24 Energy Software Fair on Friday, June 10, from 11:00 a.m. to 7:00 p.m. at the Oakland Airport Holiday Inn. Vendors of the following software will be giving demonstrations: ADM2, MICRO-DOE.2, TRACE, COMPLY 24, HAP, MICROPAS 3, EASY CALC, SECOND GEN, LIGHTING CALC., TL24 (Lighting), CALPAS 4, and SCM.

Admission is \$10.00. For more information, call Michael Gabel at: (415) 428-1588.

1988 ASHRAE Annual Meeting

The 1988 Annual Meeting will be in Ottawa, Ontario, Canada, June 25-29. More than 200 speakers from ten countries will participate in the comprehensive technical program. Among the program sessions are static regain method of duct design, simplified model for cooling predictions, evaporative cooling, heat transfer enhancement in hvac applications, variable-speed heat pumps, fan vibration problems, smoke control systems interfacing with model codes, design of run-around heat recovery system, thermal bridge effects in buildings, testing and specifying air filters for performance at discrete particle sizes, heat actuated cooling, and commissioning of building envelopes.

See you in Ottawa!

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