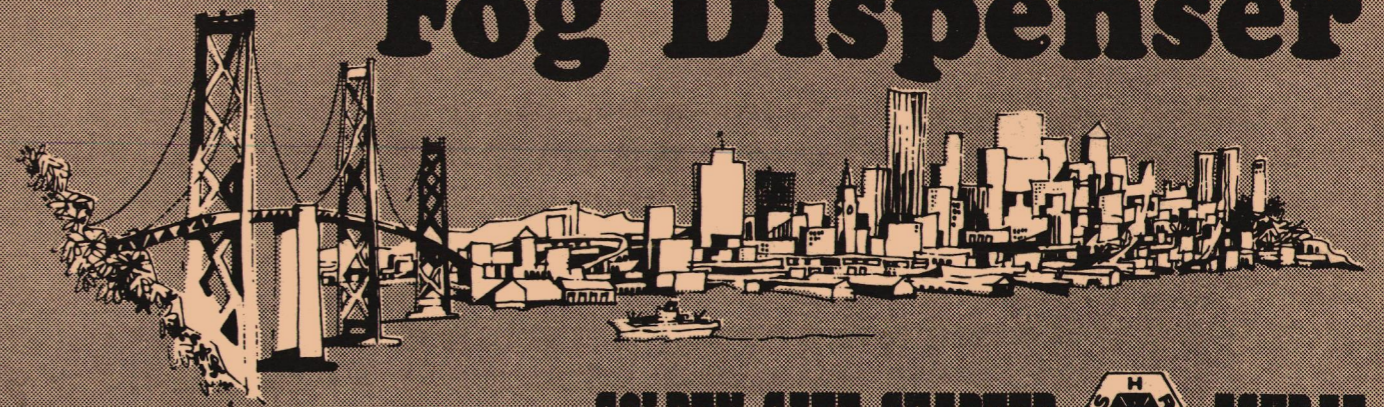


Fog Dispenser



GOLDEN GATE CHAPTER  ASHRAE

VOLUME XXII NO. 9

JUNE 1983

MEETING NOTICE -

DATE: June 2, 1983
TIME: 5:30 - 6:30 Social Hour
6:30 Dinner/Meeting
LOCATION: Engineers Club
160 Sansome Street,
16th Floor
San Francisco, CA
PHONE: (415) 421-3184

PROGRAM

June is the annual corporate business meeting for the Chapter with Installation of Officers for 1983-84 and Awards Presentations.

Mr. Paul Brand of the Bay Area Air Pollution Control District will be our speaker. Mr. Brand spoke to us about 4 years ago and made predictions which have substantially come to pass. We have asked him to bring us up to date and enlighten us on what lies ahead in air quality.

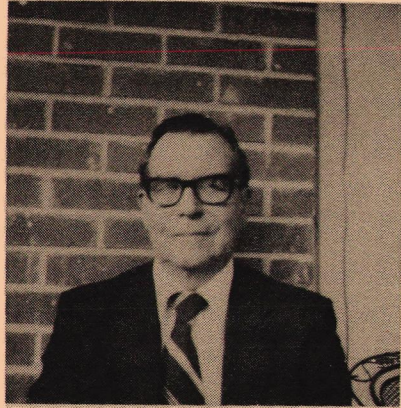
We are inviting the past presidents and their wives to be our guests for the evening so bring your wife, husband or friend for what promises to be a most enjoyable evening.

HONOR ROLL

Aronovsky & Associates
115 Fairway Drive
Daly City, CA 94015

George Aronovsky

Phone: (415) 755-8464

PRESIDENT'S CORNER

I appreciate the help and support I've had from all of you. My thanks to those who served on committees and to the chairmen who kept things moving. A special thanks to Barbara Dilts, who did a heck of a job as editor of the Fog Dispenser.

Our past presidents and their spouses will be guests of the Chapter at our next meeting. Jim has arranged for a program which will appeal to everyone, and since the June meeting is as close as we come to a "Social" we hope you'll bring your spouse, too.

Another attraction for June is the installation of Officers. I'm sure you will want to see Jim Taylor "take-over-the-reins" and show him and your new officers the same fine support you gave me. Thanks.

Tom Campbell

Where did the year go? It seems like just a few weeks ago we had our first meeting of the '82/83 year. Here it is, time for our June meeting honoring past presidents, and then comes our summer break.

I've enjoyed the past year and am honored to have served as your president. Everything considered, I think it's been a fairly successful year. Our membership has shown a healthy growth. Even better, is the increased attendance at our meetings - due to the good programs which Jim Taylor arranged.

CORRECTION

The Minutes of the April 7 meeting incorrectly listed W. Dart Rinefort as the newly elected Chapter Treasurer.

Our new Chapter Treasurer will be Dave Rifkin.

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
June 2, 1983	May 12, 1983

MAIL OR PHONE NEWS TO:

Barbara Dilts, Editor
30th Floor, Suite 3001
1 Market Plaza
San Francisco, CA 94106
(415) 974-5881

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

1982-83 OFFICERS

Thomas C. Campbell	President
James G. Taylor	President-Elect
Kevin F. Dowling	Secretary
James G. Nemecek	Treasurer

BOARD OF DIRECTORS

David Rifkin
Robert Phillips
Dart W. Rinefort

CODE RULINGS -CONTINUED-

- B-64 BBI Reorganization
- B-69 BBI Inspection Complaint Procedure
- B-71 Certificate of Final Completion & Occupancy CFC's
- B-79 Third Party Plan Checking New Construction

PHOTOVOLTAIC SEMINAR I

The Photovoltaics Seminar will be presented on June 7, 1983, by the Energy Assessments Program (California Department of General Services), the California Energy Commission, and Pacific Gas and Electric Company. The purpose of the seminar is to give both State and private architects and engineers an overview of state-of-the-art photovoltaic technologies, discuss applications that are currently cost effective, and provide them with the tools necessary to design photovoltaic systems.

The all day seminar will be held at the auditorium in the main lobby of the California State Resources Building at 1416 - 9th Street in downtown Sacramento. There will be no charge to those attending, but advance reservations are required. For reservations and further information, contact Dana Stokes at (916) 323-8777.

EARL GARDNER CARRIER DIES

Earl Gardner Carrier, a long time member of the Golden Gate Chapter, died on April 23, 1983, at the age of 77. Mr. Carrier had been a member of ASHRAE and the predecessor organizations since 1929. He became a Life Member of ASHRAE in 1970.

After moving to the San Francisco area in the 1950's, Mr. Carrier worked for Carrier

Corporation, the Lawrence Radiation Laboratories in Livermore, Kennedy Engineers, and Bechtel. He then worked as a consultant until his death.

CHAPTER HISTORY

Tom White, Chapter Historian, will share some of the Chapter history which he has been assembling. Find out more about the Golden Gate Chapter at the June meeting.

SEMI-ANNUAL MEETING AND EXPOSITION

ASHRAE's semi-annual meeting and exposition will be in San Francisco in 1986. We need ideas for educational, professional, social and tourist activities to offer to visiting participants and friends. Give your ideas to Tom White.

CODE RULINGS -CONTINUED-

75-12 Sec. 1705.C.2, Sec. 1807.1
 (f) Sec. 5130.1, SFBC
 Board of Examiners ruling 69-26
 Board of Examiners ruling 77-10
 Board of Examiners ruling 77-12
 Plastic Pneumatic Control Tubing
 75-12 Errata Sheet 2/1/78
 75-13 Life Safety Program. Fire
 Sprinkler System, Alternate
 means of Fire Suppression
 and/or High voltage &
 Critical Electrical
 Component areas. Life
 Safety system
 75-14 Smoke Detector Ordinance
 227-77
 Sec. 1309, SFBC; Sec. 309, SFHC;
 Sec. 701.1 SFEC
 75-18 Electronic Computer
 Facilities
 Sec. 1705.C.2, SFBC
 75-27 Under Raised Floor Areas
 Sec. 1716.3, SFBC
 75-19 Interpretation-Appl. Sec.
 104.F. with Phased Alteration
 Work
 Sec. 104.F
 75-20 Title 24 CAC=Handicapped
 Regulations
 Title 24
 75-21 Requirements for Atriums
 Sects. 1706.A; 807, 5130.I SFBC
 Code Ruling 68-28 Sec. 1715, UBC
 75-22 (Pending) Protection of
 Openings Adjacent to Property Lines
 Table 5.A FootNote #2

ADMINISTRATIVE BULLETINS (A-SERIES)
 (IN EFFECT ON MAY 1, 1970)

A-1 Special Inspection: Building
 Inspector's Functions
 A-2 General Information for
 Special Inspectors
 A-8 Sprinklers - Approval
 Procedures and Usage
 A-9 Plastic Piping Materials -
 Prohibited
 A-13 Certificate of Final
 Completion and Occupancy

A-15 Partition Relocation Permits,
 Existing Buildings
 A-17 Public Assembly Occupancies -
 F-2 Classification - Fire
 Department Review
 A-18 Sprinkler Systems, Maintenance
 A-20 Sprinkler Plans - Mandatory
 Consultations with Fire
 Inspectors
 A-22 Sprinkler Installations, Water
 Service Connection
 A-25 Smoke Barriers - Layouts in
 existing buildings
 A-27 Sprinkler Systems on Domestic
 Water System with Fire
 Department Connection
 A-28 Plastic Piping (DWV), Plumbing
 Permit, Requirements and
 Procedures
 A-30 Temporary Permit of Occupancy
 Buildings with Life Safety
 Programs
 A-33 Plans on Job Site, use of All
 Inspectors
 A-36 High Rise Life Safety Systems -
 Temporary Permits of Occupancy
 A-39 Energy Insulation Certificate
 of Compliance
 A-41 Standards for Existing
 Buildings
 A-43 State Industrial Safety
 Permit-Implementation
 Procedures
 A-53 Parallel Plan Checking
 A-55 Plan Checking Guidelines for
 Consulting Engineers
 A-57A Energy Conservation Ordinance
 - BBI Implementation

ADMINISTRATIVE BULLETINS (B-SERIES):

B-17 Sprinkler Size - Combination
 system
 B-22 Signatures on Plans
 B-25 Utility Installation
 Coordination - Referral of
 Permit Applications - New
 Construction Only
 B-57 Processing Bldg. Applications
 B-62 Smoke Detector Ordinance No.
 227-77 Permit Processing
 (CONTINUE ON PAGE 5)

CODE RULINGS AND ADMINISTRATIVE
BULLETINS

After the April meeting, Mr. Robert Levy of the San Francisco Bureau of Building Inspections sent the Chapter a list of 209 Code Rulings and Administrative Bulletins. The Code Committee has selected the following 62 Titles pertaining mainly to mechanical subjects. The entire list was too long for publication here.

Code Rulings (Electrical)

E70-11 Sec. 700.6 (a) -3, -5 EC
(Rev. 1-8-76)
Alternate Fuel Requirements
E70-16 Sec. 300.19 SFEC
Wiring Methods Required in a Return
Air System Sec. 300.19 SFEC
E70-17 Sec. 707.2 SFEC Fire Warning
Signaling Equipment

Code Rulings (Plumbing)

P72-6 Sec. 506 PC
Vent Termination - Location
P72-78 Article 12 SFPC
Article 23, 37, 41 & 51 SFBC
Gas Kiln
P72-30 Sec. 1007 SFPC
Sec. 5109 B Temperature
Pressure Relief Valve Drains

Code Rulings

73-1 Sec. 106, 107 S.F. Bldg. Code
Approval of New Materials of
Construction/General Requirements
73-4 Sec. 4306.J; 5119.B; 5130 &
C.R. 68-28
Fire Doors - Prohibition of
Undercutting
73-5 Sec. 4306.C; 4306.H
Fire Doors & Windows Identification
of Wire Glass
73-6 Sec. 1401, S.F. Bldg. Code
Guest Rooms with Cooking Facilities
New & Existing Buildings, 1 Occupant
73-10 Sec. 4305.B; S.F. Bldg. Code
Aluminum Conduit - Prohibition of

Slab Penetrations

73-12 Sec. 4306.G.1; Sec. 504.B
Table No. 5-A

Sprinkler Protection on Interior of
Protected Openings - Alternate to
Sec. 4306.G.1, S.F. Bldg. Code
73-13 Article 5 S.F.B.C.

Public Assembly (Restaurants) in
Office Buildings (F-2) Occupancy
Classification

73-14 Title 25, C P. 1, Subchap. 1,
Regulations adopted by CHCD
2/22/74 & Amended 8/74

Energy Insulation Regulations -
Mandatory State Requirements New
Residential Buildings

73-16 Sec. 507; Table 5-D (Footnote
10) S.F. Bldg. Code

Height & Number of Stories of Bldg.
- with Lower Stories Protected by
Fire Sprinkler System

73-18 Sec. 1706.A, 4303.B.6.B;
4305.B S.F. Bldg. Code

Slab Penetration within Partition
Enclosures or Furred Chases for
Piping in Type 1 or 2 Buildings

75-1 Sec. 1807.1.E, SFBC
Sec. 305.A.15, SFBC

Life Safety Buildings Automatic
Fire Sprinkler System Control of
Future Modifications 75-2 Sec.
4303.B.6 (c),

4303.B.6.A., 5130.I,
5130.I.1, 5130.M.5, 5131,
5131.A, 5131.B, 5131.C,
5131.E, 5131.G and 5131.L of
SFBC

Plenum Ceiling Space Fire
Protection Requirements

75-3 Sec. 1101.1 (b) SFBC
Sec. 801, SFBC

Educational Facility Children Under
Age of 18

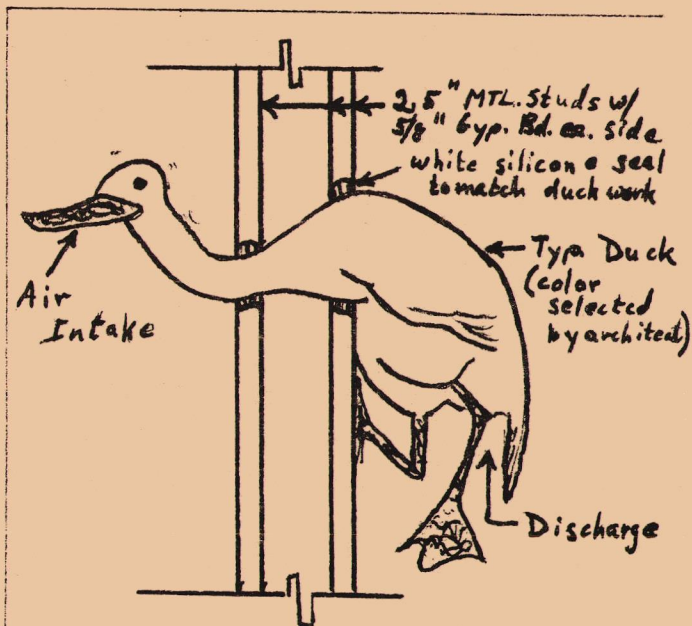
75-10 Sec. 305.A.15 SFBC
Sec. 1807 through 1807.2 SFBC

Special Inspection Life Safety
Program

75-11 Sec. 1705.C.1, 1705.C.2,
1716.3, SFBC Code Ruling
68-4 Board of Examiners 69-26
3/9/70

Plastic Combustibles Use in
Concealed Spaces (CONTINUE ON P. 4)

NEW DUCK STANDARDS



TYPICAL DUCK PENETRATION
AT PARTITION TYPE "A"

Notes:

1. CUT TO FIT, BEND TO SHAPE & PAINT TO MATCH IN WORKMAN LIKE MANNER.
2. DO NOT "GOOSE" DUCK AFTER INSTALLING.
3. FEATHERS MUST BE KEPT WET OR TREATED SO AS NOT TO EXCEED SMOKE GENERATION OF 50 OR FLAMESPREAD OF 25.
4. SECURE NORTH & SOUTH WINGS TO PREVENT EXCESSIVE FLAPPING.
5. INSTALLATION TO COMPLY WITH U.L. #678 & NFPA-26-843-9200 (Revision 23).

GOVERNMENT PROCUREMENT SEMINAR

The Society of American Military Engineers, San Francisco Post, is sponsoring a seminar on "How to Find and Do Business with the Department of Defense." This seminar is unique in that it will focus on local (Bay Area and Sacramento) procurement offices. Also, it will provide an informal opportunity to meet key individuals from local DOD offices. Topics covered in the seminar will include: "Tactics - Fine Tuning Proposals," "The Professional Liability Issue," and "Local DOD Procurement Policies." Attendance is open to all engineers, architects, contractors and other professionals interested in providing services to the Department of Defense.

The seminar will be held Wednesday, May 25, 1983, at the Casa de la Vista, Treasure Island. The cost is \$15 for SAME members and \$45 for non-members. The \$45 fee includes a one year membership in SAME. Attendance is limited, so pre-registration is required. For further information contact: Major Norman Lundin (415) 556-6511.

GOLF TOURNAMENT, April 8, 1983

A total of 64 members and guests played Green Hills and the weather was great!

Prize winners among members and guests were Roger Leffler, Chuck Tarnoff, Cliff Penry, Jack Kniveton, Jim McCormick, George Aronsosky, Bernie Beckius, Pete Filios, Joe Bonim, and Mr. Bonfeglias. Many thanks to all.

Pete Filios



VOLUME XXII NO. 8

MAY 1983

MEETING NOTICE - Field Trip

PROGRAM

DATE: May 19, 1983
 TIME: 6:00 P.M.
 LOCATION: Valley Sheet Metal
 161 Starlite Street
 South San Francisco, CA

Valley Sheet Metal is the proud owner of a plasma arc sheet metal fitting machine. This is the latest in automated shop equipment and Valley has volunteered to conduct demonstrations for us.

A buffet dinner will be available hosted by Valley. We will need an accurate count of those attending. Please return the enclosed card or call Jim Taylor at (415) 786-1335

HONOR ROLL

Norman S. Wright Company
 850 Harrison Street
 San Francisco, CA 94107
 Phone: (415) 777-5333

Rich Leao
 Jack Kniveton
 Dick Byers
 Mike Cadoo

PRESIDENT'S CORNER

Our 1982/83 fiscal year is rapidly drawing to a close. Our field trip in May and then the June meeting, and that's it for this year. It won't break my heart not to have to write this column anymore.

By the way, please note the change in the Field Trip from what was discussed at the April meeting. I think you'll find it interesting, and certainly a lot more convenient than traveling to Santa Clara to tour the Owens-Corning plant. If there is enough interest, we can schedule a plant tour at some later date.

Looking back at our goals for the year, we still have some unfinished business.

The Code Committee's work seems never to end. They're still working on the S.F. Building Code and have also begun review of proposed changes to the Uniform Building and Uniform Mechanical Codes. If any of you have problems with these two codes, maybe you can get Glenn's committee to submit a code change proposal for you.

The Energy Conservation Committee is still looking for nominations for energy conserving

jobs. Don't be bashful; your project might win an award.

They're also monitoring the CEC's efforts to rewrite the non-residential energy regs. Dick Charles, Zulfi Cumali and Karl Guttman are deeply involved. Not knowing whether there will be a budget to cover next year's work, the CEC is busting their tails to get new standards for Low-rise (and perhaps High-rise) Office Buildings adopted before the end of June.

Sherman Brown is still beating the bushes for contributions to ASHRAE Research. Thanks to all who have given. To those who haven't, won't you please give something? Remember, it's deductible.

Regarding the PAOE, we still have a fighting chance of winning an Award for the G.G. Chapter. I need to know the names of those who are serving in any Society Tech. Committee or Task Force.

Don't forget CRC in Reno, May 12-13. We can earn extra points toward the PAOE for each one who attends.

Hope you enjoyed the Golf and Tennis Tournaments. Thanks to Pete Filios and Grant Bentley for setting things up. Hope you all enjoy the Field Trip.

Tom Campbell

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James G. Taylor President-Elect
Kevin F. Dowling Secretary
James G. Nemechek Treasurer

BOARD OF DIRECTORS

David Rifkin
Robert Phillips
Dart W. Rinefort

May 5, 1983

MINUTES OF LAST MEETING -CONTINUED-

Mr. Levy described the development of the new San Francisco Building Code which hopefully will go to the Board of Supervisors in July. The City will adopt the 1979 UBC and UMC with a separate book of amendments. The existing SF Plumbing Code will be retained until the 1984 UPC is published at which time the City will probably adopt it. The National Electrical Code is being reviewed for possible adoption by the city in late summer or early fall.

12. Following a question and answer session, the meeting was adjourned at 9:20 p.m.

ASPE/ASHRAE PRODUCT SHOW

The ASPE/ASHRAE Product Show will be held on October 12th, 1983, at Pier #3, Fort Mason. Be ready to hear about a much improved heating and air conditioning and plumbing show in the next few months. There will be better parking, restrooms, telephone service, food and bar service. For information before the organized mailers go out, call Dave Rifkin at 786-3500. Get ready for this big show!!!!

RAFFLE REPORT

Thanks to all who supported the April raffle benefitting the Golden Gate Chapter ASHRAE Scholarship Fund. Raffle sales set a year to date record at \$104. Prizes for the April raffle were purchased by the Chapter.

Tom Judson
Raffle Committee Chairman

CONGRATULATIONS

A. Calvin Laws, PE, has been re-elected President of ASPE for a second consecutive term. The American Society of Plumbing Engineers is a national organization of engineers and designers of plumbing systems. Laws has previously held national positions of Treasurer, Vice President Technical, Convention Committee Chairman and several other committee chairmanships. He is a design engineer at Gaynor Engineers here in San Francisco and is a member of the San Francisco Chapter of ASPE.

ASHRAE ENERGY PROFESSIONAL DEVELOPMENT SERIES

The ASHRAE Professional Development Seminar I, "Air System Design and Retrofit for Energy/Cost Effectiveness" will be April 28-29, 1983, in Honolulu, Hawaii. Flyers are available with more details on program and registration.

NEW MEMBERSHIP PROCEDURES

Beginning May 1, 1983, all applications for membership in ASHRAE must be accompanied by a \$50 "Admittance Fee." This fee will cover the first fiscal year's dues, or any portion thereof, regardless of age, grade or month elected.

JOB OPENING

Safeway Stores has a job opening for a senior refrigeration engineer in its corporate engineering division located in Oakland. Send resume to Safeway Stores, Inc., Engineering Division, 425 Madison Street, Oakland, CA 94660 or call 891-3515.

MINUTES OF LAST MEETING

April 7, 1983

Attendance: 88 Members
44 Guests

1. The meeting was called to order at 7:04 p.m. by President Tom Campbell who welcomed the guest speaker for the evening, Mr. Bob Levy, and two sponsors of the new U.C. Berkeley ASHRAE Student Chapter, Professor Van Carey and Professor Boris Rubinsky. Self-introductions of members and guests followed.

2. Tom Campbell announced that Gary Harbison and Don Bryant were instrumental in starting a new student chapter at U.C. Berkeley and introduced Sean Smith and Stephen Kemerer, the President and Vice President respectively of the new chapter. Sean announced there are now 30 members in the Chapter and Stephen expressed a desire of the students to tour plants and buildings to gain field experience.

3. Peter Filios reminded members the Annual Golf Tournament will be held April 8th.

4. Dart Rinefort announced 145 ballots were returned for the election of officers of the Chapter for the year beginning July 1, 1983, and the results were as follows:

President Elect	- Kevin Dowling	145
Secretary	- Jim Nemechek	145
Treasurer	- W. Dart Rinefort	145
Board Member	- Sherman Brown	145
Board Member	- Tom Campbell	116
Board Member	- Dale A. Davis	1

5. Jim Taylor announced next month's meeting is the annual field trip which will be a tour of the Owens Corning Fiberglass plant in Santa Clara.

6. Tom Campbell has received information from National Headquarters that, effective May 1, applications for membership must be accompanied by a check for \$50.00.

7. Energy Conservation Chairman Doug Daniels requested entries for the 1983 ASHRAE Energy Awards Program. The goal is to recognize successful energy projects on the local, regional and national levels in five separate categories. The project must have been in operation for at least one year and entries must be submitted to Doug Daniels by April 24th.

8. The meeting was adjourned until 7:50 p.m. when Tom Judson conducted the raffle.

9. Sean Smith requested anyone interested in hiring part time summer help to contact him at U.C. Berkeley.

10. Jim Taylor reminded members that the Region 10 CRC meeting will be held in Reno, May 12, 13, & 14th and introduced the guest speaker for the evening, Mr. Robert Levy, the Superintendent of the Bureau of Building Inspection for the City of San Francisco.

11. Mr. Levy discussed the parallel plan checking process used in San Francisco by which several City groups review the plans and specifications for a building simultaneously which cuts the plan checking time in half. Computer tracking of the permit process and third party plan checking of major projects will help alleviate the plan check backlog. The third party plan checker must be a licensed engineer or architect hired by the owner and approved by the BBI to check structural, energy, HVAC and life safety design.

- CONTINUE ON PAGE 4 -

SPORTING EVENTS AT CRC '83

! Tennis Tournament - May 12,
CRC '83!

Here's a chance for all
burgeoning Connors and closet
Chrisses to wrest the perpetual
trophy from defending champion
Sacramento Valley Chapter.

Prerequisite: A racquet
Level of Play: Any
Place: MGM Grand, Reno

! Golf Tournament - May 12

You think you are as good as
Palmer or Stadler, show us. Take
the perpetual trophy back to your
chapter.

Prerequisite: A desire to play
Level of Play: Any
Place: Wild Creek
Championship golf
course

All men and women associated
with ASHRAE are welcome.

BUILDING ENERGY PERFORMANCE ANALYSIS
IS COURSE SUBJECT

An intensive three-day course,
"Building Energy Performance
Analysis Using the DOE-2 Computer
Program," will be presented on July
19-21, 1983, at the University of
California, Berkeley, sponsored by
Continuing Education in Engineering,
a division of UC Berkeley Extension.

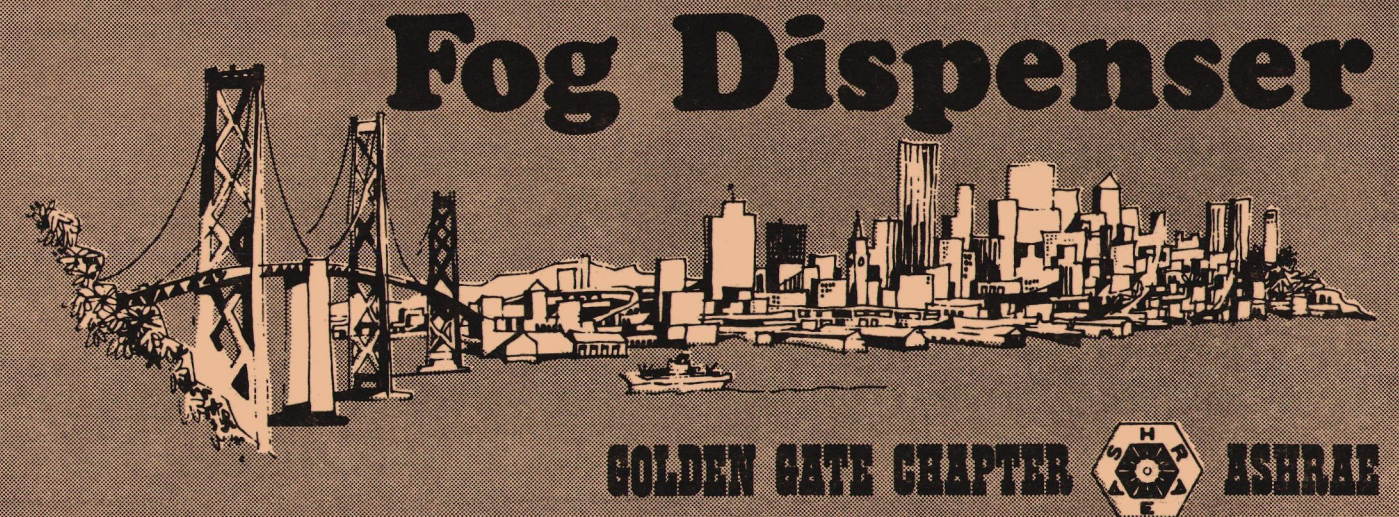
The course will have two
objectives: first, to enable
participants to describe their own
building energy analysis problems in
the DOE-2 input language; and,
second, to familiarize them
sufficiently with the simulation
techniques, capabilities and range
of validity of the program to obtain
correct results from it.

The DOE-2 program has been
widely used to predict the energy
use of new buildings and to judge
the value of retrofits on existing
buildings. It uses a building
description and weather data to
perform a detailed simulation of
the building's envelope and
associated heating, ventilation
and air-conditioning equipment.

James J. Hirsch and Fred
Buhl, two staff members of the
University's Lawrence Berkeley
Laboratory, will be the course
instructors. They have been
involved in developing DOE-2 from
its inception and are authors or
co-authors of segments of the
program. They also have taught
numerous courses on the uses of
DOE-2. Hirsch is the DOE-2 group
leader, in charge of program
development, maintenance and
documentation.

Course sessions are scheduled
from 8:30 a.m. to 4:30 p.m. each
day in the faculty club on the
Berkeley campus. The registration
fee of \$595 includes all course
materials. Enrollment is limited
and advance registration is
necessary.

For a detailed brochure write
to Continuing Education in
Engineering, Dept. 594N,
University of California
Extension, 2233 Fulton Street,
Berkeley, CA 94720, or call
(415) 642-4151.



VOLUME XXII NO. 7

APRIL 1983

MEETING NOTICE

DATE: April 7, 1983
TIME: 5:30 - 6:30 Social Hour
6:30 Dinner/Meeting
LOCATION: ENGINEERS CLUB
160 Sansome Street
16th Floor
San Francisco, CA
Phone: (415) 421-3184

PROGRAM

San Francisco Code and Plan Review

Mr. Robert Levy of the
San Francisco Bureau of Building
Inspections will discuss building
inspections, plan review, mechanical
code changes and U.L.

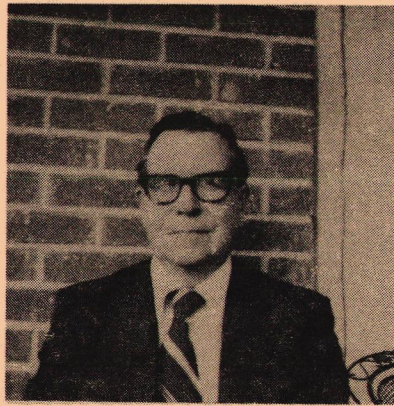
It promises to be lively and
interesting meeting, so get your
reservations in now.

HONOR ROLL

University Mechanical and Engineering
Contractors, Inc.
1668 Factor Avenue
San Leandro, CA 94577

Bill Lieber
Gino Colacchia
Hank Mouw

Phone: (415) 351-4060

PRESIDENT'S CORNER

This month's column is going to be very short, which I am sure will make most of you very happy. Unfortunately, when we have plenty of space in the Fog Dispenser Barbara runs my picture, which makes Tom White get all over me about what a rotten picture it is. Too late to bother with something better as the year is almost over.

I'm sure you will all want to join me in welcoming the new student members from the brand new Chapter being formed at UC-Berkeley. Thanks in advance to those of you who help out our treasury by sponsoring one of these students to the April meeting's dinner.

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James G. Nemechek Treasurer

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Robert Phillips
Dart W. Rinefort

My thanks to Frank Mayhew and Gary Harbison, and, of course, to all of the speakers who participated in this year's Seminar. The comments from those who attended have been most complimentary regarding the well organized presentations.

In conclusion, don't forget:

Golf Tourny	April 8
Tennis Tourny	April 22
CRC	May 12-14
ASHRA Research	Always

Tom Campbell

TREASURE'S REPORT

As of February 28, the members' equity was \$8,232.39. Our liabilities were \$395.

Jim Nemechek
Treasurer

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
Apr. 7, 1983	Mar. 7, 1983
May 5, 1983	Apr. 14, 1983
June 2, 1983	May 12, 1983

CRC 1983 WORKSHOP GOVERNMENT AFFAIRS

What can our Chapter do? What can I do as a member of ASHARE? What can the Society do to direct the course of legislation relating to the Heating, Ventilating, Refrigeration and Air Conditioning business? How many times have you heard one of these questions? The Society Government Affairs Committee has been studying this problem and together with their legal advisors have been able to formulate policies which can be used at the Society, Chapter and individual levels to make it possible to appear before various government bodies and speak out. Representatives of the committee will be holding a workshop on Saturday, May 14, 1983, at the Region X CRC to explain this policy, answer questions and clarify our position. Chapters are urgently requested to have the chairman of their Legislative or Governmental Affairs Committee attend this workshop. It is recommended that all Chapter officers attend also.

ASHRAE ENERGY AWARDS PROGRAM

A before dinner workshop will include a brief slide presentation on the 1983 ASHRAE Energy Awards Program. There will also be a description of how to enter this year's program.

TENNIS ANYONE?

Time to register for the 1983 ASHRAE tennis tournament on April 22. Use the enclosed flyer to send your registration to the Committee Chair, Grant Bentley. If you have any questions, call Grant at 398-2755.

CONTRIBUTIONS TO THE 1982-83 ASHRAE RESEARCH DRIVEIndividuals

1. Robert Carter
2. Kevin Dowling
3. Robert & Elizabeth DeChase
4. Dick Friedman
5. Jack Palmer
6. Dave Rifkin

Companies

1. Air Filter Control
2. E. B. Ward Company
3. Engineered Air
4. J. W. McClenahan
5. J. L. Meyers
6. Mirov-Trane

A special contribution in memory of Lew Pollack was made by our Golden Gate Chapter.

Please continue your contributions to this worthwhile cause and make your check payable to:

ASHARE RESEARCH
c/o Sherman Brown
AIR REPS, INC.
10 Adrian Court
Burlingame, CA 94010

ASHRAE ENERGY PROFESSIONAL DEVELOPMENT SERIES

The following seminars are coming soon.

Seminar I - Air System Design and Retrofit for Energy/Cost Effectiveness - April 28, 1983 - St Louis, Missouri.

Seminar II - Automatic Temperature Controls for Energy/Cost Effectiveness - March 31 - April 1, 1983-Anaheim, California.

MINUTES OF LAST MEETING -CONTINUED-

12. Sherman Brown, Research Committee Chairman, asked members for donations to ASHRAE Research. Contributions are tax deductible.

13. Bob Braun, Energy Committee member, announced the Committee is sending a letter to the California State Energy Commission on behalf of ASHRAE members urging the Commission to continue efforts to upgrade and improve the existing State energy regulations. There is talk in Sacramento that many functions of the Commission, including the conservation effort, may be curtailed for budgetary purposes. The Commission is very receptive to input from ASHRAE and Bob encouraged members to write to their representatives expressing their views on the Commission.

14. Tom Campbell announced the National Bureau of Standards, ASHRAE and CEC are sponsoring a two day seminar on April 7 and 8 at the Sheraton Palace Hotel in Los Angeles on Thermal Insulation for Commercial and Industrial Applications.

15. The meeting was adjourned until 8:04 when Tom Judson conducted the raffle.

16. Dave Rifkin then introduced Mr. Peter Barnes, founder of the Solar Center, and Mr. Norm Ries who spoke on third party financing and tax incentives for solar system installations.

17. Mr. Barnes pointed out that solar systems, with the exception of pool heaters, don't make sense financially without tax credits and utility rebates. These credits were enacted to help in the development of solar technology

which has to compete with conventional fuel sources. On a typical apartment domestic water installation, Federal and State tax credits, plus utility rebates, will cover 70 to 80 percent of the installation cost in the first year and additional savings are realized from conventional energy reductions and depreciation of the equipment.

18. Mr. Ries discussed third party financing for solar installations by which third party investors can take advantage of the tax credits offered. This method of financing is attractive for non-profit organizations and individuals who could not gain much advantage from the tax credits but who have a need for a solar installation. Other methods of financing include leasing agreements and lease purchase agreements.

19. Following a question and answer session, the meeting was adjourned at 9:20 p.m.

CAL BERKELEY NIGHT AT ASHRAE

We have a newly formed student Chapter of ASHRAE at Cal Berkeley. On Feb. 24 officers were elected. The April ASHRAE meeting will be Cal Berkeley night. Anyone wishing to sponsor a student for dinner should contact Gary Harbison at 956-4964.

RAFFLE REPORT

The Chapter would like to obtain raffle prize donations for the April and future meetings. When the prizes are donated, 100% of the raffle proceeds go to the Scholarship Fund. If you would like more information, or to donate prizes please contact Tom Judson at (415) 932-4201.

Thank you for supporting the Chapter Scholarship Fund Raffle.

MINUTES OF LAST MEETING

March 3, 1983

Attendance: 53 Members
19 Guests

1. The meeting was called to order by President Thomas Campbell at the San Francisco Engineers Club at 7:00 p.m. Self-introductions of members and guests followed.

2. President Thomas Campbell reminded members this year's CRC meeting will be held at Reno, Nevada on May 12th to 14th. The Chapter can get points toward the Presidents Award of Excellence for each member who attends.

3. Tom Campbell announced the Board of Directors has made a donation of \$100 to ASHRAE Research in memory of Lew Pollock.

4. Glenn Claycomb advised members that Bob Levy, Superintendent of Building Construction for the City of San Francisco, will speak at the April meeting on problems members have in dealing with the S.F. Building Department. Members should submit any questions they have for Mr. Levy to John Lewis (tele: 981-0290) so Mr. Levy can come to the meeting prepared.

5. Members who serve on ASHRAE Technical Committees are requested to let Tom Campbell know what they are doing as the Chapter can gain points for the Presidential Award of Excellence for this type of activity.

6. Tom Campbell announced the Chapter is presently in good shape financially with members' equity of \$6,680.

7. Gene Valerio, Nominating Committee Chairman, announced the

committee's recommendations for officers of the Golden Gate Chapter for the coming year. It was moved, seconded and unanimously passed that the nominations be approved as submitted.

8. Golf Tournament Chairman, Pete Filios, announced this year's golf tournament will be held at the Green Hills Club in Millbrae on April 8th. Price of \$64 will include golf, dinner and prizes.

9. Tom Campbell announced the annual tennis tournament will be held at the San Francisco Tennis Club between 1 and 4 p.m. on April 22nd. Entry fee is \$25 and Grant Bentley should be contracted at 398-2755 with entries.

10. Gary Harbison, Education Committee Chairman, reported that the first session of the Technical Development Seminar was held on Wednesday, March 2, and he encouraged as many members as possible to attend the next three sessions. A new ASHRAE student chapter has now been established at U.C. Berkeley and Gary encouraged members to sponsor a student at the April monthly meeting.

Don Bryant announced that HVAC courses are now being taught at U. C. Berkeley and Tom Campbell congratulated Gary and Don for establishing the new student chapter.

11. Tom Reinarts, the ASHRAE liason member to the Bay Area Engineers Joint Council, encouraged members to subscribe to the new Bay Area Engineers Magazine which serves all engineers in Northern California. Annual subscription cost is \$7.00.

- Continue on Page 4 -

HVAC-R CERTIFICATE PROGRAM BEGINS
- Continue from Page 5 -

Although the courses do not have to be taken in sequence, the curriculum provides a coherent approach to acquiring the basic background needed for analyzing, designing, sizing, specifying, maintaining and managing HVAC systems.

Additional courses on special topics will be presented to supplement the core curriculum. They will not be required for the certificate but will provide opportunities for study of specialized areas in depth.

For further information call (415) 642-4151 or write to Continuing Education in Engineering, University of California Extension, 2223 Fulton Street, Berkeley, CA 94702.

SMACNA DISCONTINUES TAPE REGISTRATION PROGRAM

Vienna, VA -- The Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) has announced a phase-out of the Tape Registration Program it has operated for nine years. The program involved a foil tape manufacturer having his product tested at an independent laboratory for compliance with the SMACNA Tape Standard for Fibrous Glass Ducts, then submitting the confirmation to SMACNA along with assurances of commitment to maintain the same product quality level. At that time, the tapes were listed or "registered" with SMACNA with annual renewals available.

Tapes currently registered with SMACNA are allowed to remain in production with current imprinting until the expiration of registration dates in 1983. All will have

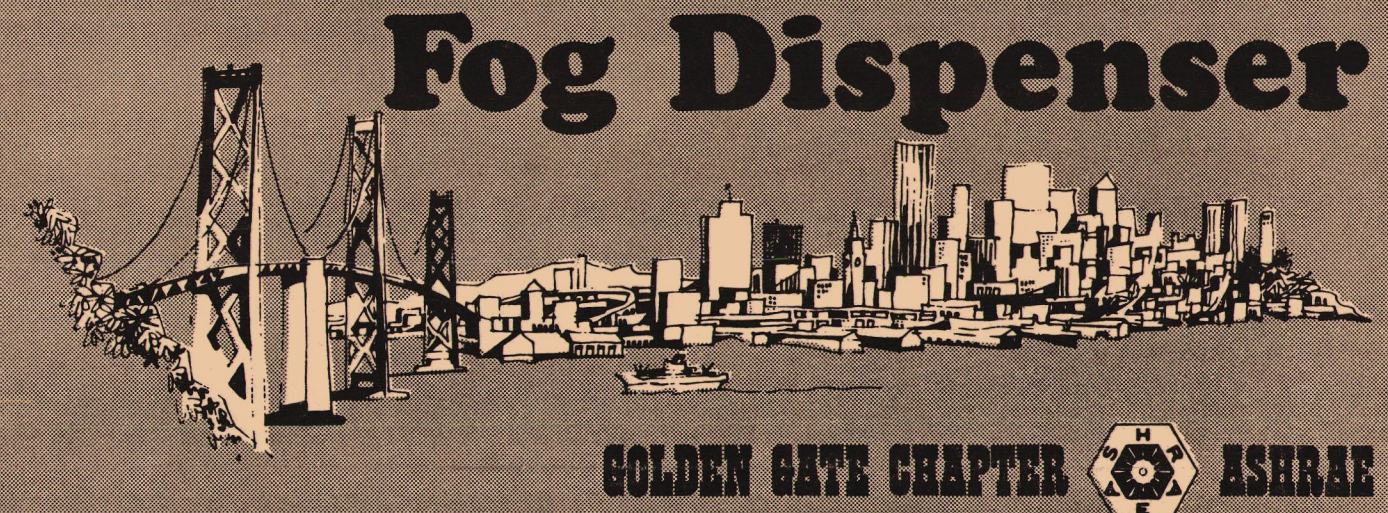
expired by November 1, 1983. Thereafter, SMACNA will no longer be involved in tape registration.

SMACNA will continue to maintain their published tape standards. Industry is free to continue to produce tape compliant with the SMACNA standards, says SMACNA, but it will be on an unmonitored self-certification basis.

In addition, in a majority of installations, compliance with NFPA Standard 90A and UL Standard 181 are involved. This means that the closure system must be one that is recognized by the duct board manufacturer in accordance with his listing. In such cases, compliance with the SMACNA standard is not the primary criteria, although SMACNA still recommends compliance with their Pressure Sensitive Tape Standards when that closure option is selected by the contractor.

In conjunction with discontinuing the tape program, SMACNA has published an Interim Amendment to the fifth edition of the Fibrous Glass Duct Construction Standards which contains the Tape Performance and Tape Application Standards. The amendment removes the SMACNA name on tapes and changes a provision requiring compliance with the tape standard to a status of "recommended" compliance. That requirement had pertained only when pressure sensitive tape was selected from among the wider range of available closure systems.

For more information, contact John H. Stratton, Director of Technical Services, SMACNA, P.O. Box 70, Merrifield, VA 22116; telephone (703) 790-9890.



VOLUME XXIII NO. 1

OCTOBER 1983

MEETING NOTICE

DATE: October 6, 1983
TIME: 5:30 - 6:30 Social Hour
6:30 Dinner/Meeting
LOCATION: Engineers Club
160 Sansome Street,
16th Floor
San Francisco, CA
PHONE: (415) 421-3184

PROGRAM

"Smoke Control in Building Structures"

Mr. Brooks Semple will discuss the latest theories and techniques for smoke control in building structures.

Mr. Semple, from Washington, D. C., is one of the nation's foremost authorities on fire protection and smoke control and has been a speaker at numerous seminars and meetings on this subject.

With the recent disasters at the MGM Hotel in Las Vegas and elsewhere, the importance of smoke control in buildings is obvious. This meeting presents an excellent opportunity to hear the latest techniques on this topic.

HONOR ROLL

TK and Associates, Inc.
27515 Industrial Blvd.
Hayward, CA 94545
Phone: (415) 786-1335

James Taylor
William H. Kennison
William A. Kennison
Jeff Kennison
Susan Siegert
Denis Contreras

PRESIDENT'S CORNER



The sun tans haven't even begun to fade and here we are starting another year of meetings. The Board has been very active over the summer making the long trips to meetings in Hayward. Dave Rifkin and his Product Show Committee have been working with ASPE and the Product Show is almost a reality. Let's have a big turnout on October 12th to see all the new equipment.

I would like to thank all of you who took the time to return the committee selection sheets last June. A full complement of Chairmen are ready to tackle another

year. If you sent in a sheet, your name has been forwarded to the chairman. But don't wait. If you are interest in a committee, call the chairman and get involved. A list of all the committees is published in this issue.

The Society will be conducting a Professional Development Seminar in San Francisco on October 20 and 21. The topic is "Water System Design and Retrofit for Energy/Cost Effectiveness." Each of you has received an announcement from the Society with the details. If you attend any of these seminars, please let me know. The Chapter will receive money if the number of registrants from this Chapter exceeds our quota.

Bill Chapman, Roster Committee Chairman, is getting started again. The deadline for having your name in the Roster will be the November 3 meeting. If you have not returned your registration form and dues by that date, you will not be included. Get them in now; we need the cash!

As you will note elsewhere in this issue, the cost of dinner has gone up again. At the October meeting I will propose the Chapter pay 1/2 of the meal cost for any student members who attend. We want to encourage the Berkeley and City College students to attend. This should get the cost down to a reasonable level for them.

- Continue on Page 4 -

PROFESSIONAL DEVELOPMENT SEMINARS - FALL 1983

ASHRAE is again providing a series of Professional Development Seminars designed to increase the technical knowledge of the registrants and to provide information and tools which can be put to immediate use on current projects.

Fall Seminars Schedule

"Air System Design and Retrofit for Energy/Cost Effectiveness" October 13-14, Seattle; October 27-28, Toronto; November 10-11, Charlotte. This seminar starts with the fundamental physical concepts of air moving systems and will procede to details of initial design of new system and then to retrofit of existing systems.

"Automatic Temperature Controls for Energy/Cost Effectiveness" October 17-18, Portland; October 24-25, Boston; October 31 - November 1, Albuquerque; November 14-15, Chicago. This seminar will discuss ways to improve performance and decrease first cost and operating cost for control systems used with HVAC air handling systems.

"Water System Design and Retrofit for Energy/Cost Effectiveness" October 20-21, San Francisco; October 27-28, Chicago November 3-4, Philadelphia. This seminar begins with fluid flow fundamentals, pipe sizing and pump selection. It will then focus on energy effective design for lowest life cycle cost, more complex systems, variable flow systems, retrofit and advanced operating techniques.

If the Golden Gate Chapter has more than nine members attending the

seminars, the Chapter will receive \$50/person.

HVAC-R CERTIFICATE PROGRAM BEGINS

UC Berkeley Extension and the Golden Gate Chapter of ASHRAE have developed a four-course curriculum in heating, air conditioning and refrigeration intended for practicing engineers, designers, technicians, energy consultants and managers, and others in the HVAC field who require a working knowledge of the principles and applications of HVAC systems.

The first course in the sequence, "Air Conditioning and Heating Psychrometry X469," will begin on September 19 at the UC Extension Center, 55 Laguna Street (at Market), in San Francisco. Taught by Donald C. Bryant Sr., an ASHRAE Fellow and emeritus faculty member of the engineering department at City College of San Francisco, the course will consist of 12 sessions on Mondays from 7:00 a.m. to 9:30 p.m. Two units of UC Extension credit in mechanical engineering may be earned (credit is optional); the course fee is \$165.

Later courses in the series are "Air Conditioning and Heating Systems Analysis X470," "Refrigerating Concepts X471" and "Design Considerations in Air Conditioning and Heating Systems X472." These courses are also suitable for experienced practitioners who want to update their knowledge of new energy standards and applications in design practice.

On successful completion of the four courses--which may take two years or more--a certificate of accomplishment will be awarded by the Golden Gate Chapter of ASHRAE. - Continue on Page 6 -

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 and COPY DEADLINE. Rows include dates from Oct 6, 1983 to June 7, 1984.

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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30th Floor, Suite 3001
1 Market Plaza
San Francisco, CA 94106
(415) 974-5881

PRESIDENT'S CORNER -CONTINUED-

I'm looking forward to seeing all of you at the first meeting. I will try to keep the business portion short. Please return those dinner sign up cards.

Jim Taylor
President

ASPE/ASHRAE PRODUCT SHOW

Mark your calendars now!
October 12, 1983 - noon to
9:00 p.m. Fort Mason, Pier 3,
San Francisco.

Plan to attend the product show and see the latest in HVAC and plumbing equipment which will be on display in over 100 booths.

Remember the last show the attendance was over 1,200 people and this year should exceed this figure. Better parking will be available this year at Fort Mason. And we'll have free jitney service between the parking lot and Pier 3.

Manufacturers and representatives don't be left out; get your applications in to Harry Rose:

c/o Milmac
347 Littlefield Avenue
South San Francisco, 94080
871-4343

and if you need an application call John Lento at (415) 442-6399.

S.A.M.E. SEMINAR

The Society of American Military Engineers, (SAME), San Francisco Post, is sponsoring a seminar on "How to Find and Do

Business with the Federal Government." The seminar will be held on Wednesday, October 12, 1983, at the Marines' Memorial Club on 609 Sutter Street, San Francisco. Registration will start at 8:00 a.m. This seminar is unique in that it will focus on local (Bay Area and Sacramento) procurement offices and will provide an opportunity to meet informally with key individuals from local Government agencies (Air Force, Army, Navy, General Services Administration, Veterans Administration, Postal Service, Department of Energy, Lawrence Berkeley Labs, Bureau of Reclamation, and Bureau of Land Management). Topics to be discussed include: (1) Architect-Engineer (A-E) Negotiations, (2) A-E Selection Process, and (3) Contracting Opportunities - Environmental Planning, Design, Construction. Each of these topics will be discussed in a separate 2 1/2 hour session. Each session will be held both in the morning and afternoon. So, each attendee will be able to participate in two out of the three sessions. Attendance is open to anyone interested in providing planning, design, or construction services to the Federal Government. The cost will be \$40 for SAME Sustaining Members, \$45 for SAME members, and \$75 for non-members (which includes one year membership in SAME). Lunch is included in this price. A \$10 fee will be charged for people not pre-registered by Wednesday, October 5, 1983. For further information, contact Michael R. Hayes, Captain, 630 Sansome Street, Room 1316, San Francisco, CA 94111; Phone (415) 556-6790 or 556-4828 or 561-4303.

MINUTES OF LAST MEETING

June 2, 1983

Attendance: 88 Members
44 Guests

1. The meeting was called to order at 7:05 p.m. by President Tom Campbell at the San Francisco Engineers Club. Self-introductions of members and guests followed.
2. At the request of Tom Campbell, former President Carl Jordan introduced the Golden Gate Chapter Officers and Board Members for the coming year. They were formally installed in office.
3. Tom Campbell introduced the new President for 1983-84, Jim Taylor.
4. Jim Taylor announced that Gene Valerio won the ASHRAE Regional Award of Merit and Dick Charles was elected Region 10 Chairman for two years at the recent CRC meeting in Reno. The meeting was well-attended and very successful.
5. Chapter Historian Tom White spoke on the history of the Golden Gate Chapter from 1937 when it was formed to the present day. Tom requested volunteers to serve on the various committees to organize the 1986 ASHRAE Semi-Annual meeting in San Francisco. The Golden Gate Chapter is responsible for the Technical Committee and over 5,000 hotel rooms have been reserved for the meeting.
6. Bob Phillips presented certificates of appreciation to the various Committee Chairmen for the long hours of hard work and dedication they have devoted to the Chapter.

7. The meeting was adjourned till 8:26 p.m. when Tom Judson conducted

the raffle.

8. Jim Taylor introduced Mr. Paul Brand from the Bay Area Air Pollution Control District. Paul described the activities of the Pollution Control District which is responsible for air quality outside building structures in nine Bay Area counties. The main function of the District is to enforce existing regulations through legal action if necessary. Paul noted tremendous progress has been achieved over the past twenty years in improving air quality in the Bay Area through the efforts of the Air Pollution Control District.

9. Following a question and answer session, the meeting was adjourned at 9:35 p.m.

MORE CLIMATIC DATA

We now have an addendum sheet for the Climatic Data book--design temperatures for the principal population centers in the San Fernando Valley, part of the city of Los Angeles. If any of you are working in that area, pick up a copy at the October meeting.

ADVERTISEMENT

Octoberfest Celebration time (9/15/83-11/15/83). Authentic German Folk Dance Group (Schuhplattlers) and accordionist add to your entertainment. Call Bill Dinwiddie (415) 451-5014 of Almenrausch Schuhplattler.

TITLE 24 SEMINARS

The Association of Bay Area Governments (ABAG) is conducting a series of seminars on the new Title 24 Energy Regulations for Residential Buildings. Registration forms and detailed information are available.

NEW ENERGY MANAGEMENT ASSOCIATION
FORMED (CONTINUED)

Membership in the Association is open to practicing energy managers, vendors of energy management services or equipment, and companies having an interest in the energy field. Annual membership dues are \$60.

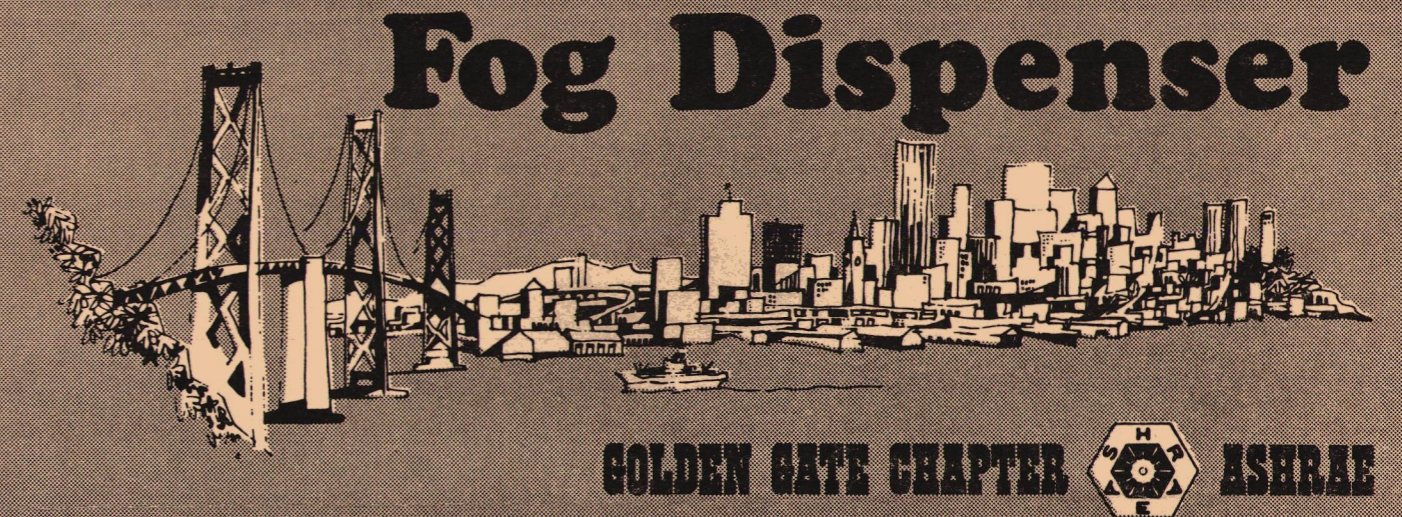
For additional membership information, contact the Association at One Market Plaza, Suite 3001, San Francisco, CA 94106, (415) 332-8055.

A THANK YOU AND A WELCOME

This month marks a change behind the scenes for the Fog Dispenser. Mei Tei Wong, our wordprocessor operator and unofficial assistant to the editor, is leaving to have a baby. Kim Domeniconi is replacing her and will be equally indispensable. Thank you Mei Tei for all your work. Welcome Kim.

MINUTES

The Minutes of the last meeting will be published in the next Fog Dispenser.



VOLUME XXIII NO. 2

NOVEMBER 1983

MEETING NOTICE

DATE: November 3, 1983
 TIME: 5:30 - 6:30 Social Hour
 6:30 Dinner/Meeting
 LOCATION: Engineers Club
 160 Sansome Street,
 16th Floor
 San Francisco, CA
 PHONE: (415) 421-3184

PROGRAM

"What Every HVAC Engineer
Should Know About Air Filtration"

Gene Valerio, past-president of the Golden Gate Chapter, and Bob Swezey, past-president of the San Jose Chapter, will present a fast-paced review of air filter fundamentals: test standards, particle sizes, filter types and where to use them, and application do's and don't's. Both are with Air Filter/Control in Redwood City.

HONOR ROLL

Air Filter/Control
 1023 Chestnut
 Redwood City, CA 94063
 Phone: (415) 367-8310

At your service:
 Gene Valerio
 Bob Swezey
 Jim Nemechek

PRESIDENT'S CORNER



Cal Poly is coming to the November Meeting. We are expecting about 20 students from the Air Conditioning Department to be our guests. This year, we again ask Golden Gate members to purchase an extra meal ticket for the students. We'll have someone at the door to collect the tickets.

The Board of Directors has voted a budget of \$500 to be used for the U.C. Berkeley Student Chapter. Gary Harbison and Kevin Dowling are formulating a program to give awards for the best papers submitted. We hope to present these awards when the U.C. students are our guests this spring. If you like to help give Gary a call.

Don't forget to pay your Chapter dues by meeting night so we may include you in this year's Roster.

PRODUCT SHOW

The Golden Gate Chapter Product Show Committee wishes to thank the exhibitors, vendors, and supporters of the October 12 event. The Show was a success and the new products were exciting to the many people who came to learn about the offerings. Our extended thanks to the San Francisco Chapter of ASPE whose expertise is unequalled in producing a show like this.

The October meeting has set a good tone for the coming year. The attendance was over 100 and came very close to the number of reservations mailed in. Please send in those cards. This is the only way the Engineers Club can judge their staffing levels.

Dave Rifkin and his Product Show Committee have completed another very successful show. This effort started last spring and carried through the summer. Again a hardy "Thanks" do the ASHRAE and ASPE members for an excellent job.

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:

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c/o PG&E
30th Floor, Suite 3001
1 Market Plaza
San Francisco, CA 94106
(415) 974-5881

ASHRAE CODE COMMITTEE MINUTES

Present: Bob Voelz, Dick Glumac, Jim Breeze, Igor Tartakovsky, John Lewis, and Frank Lew - BBI

Following items were discussed relative to SFBC proposed amendments:

1. Code Committee originally wanted to write a letter to the Board of Supervisors regarding the deletion of the following: "Smoke control systems shall not be designed to exhaust air from not more than three floors above fans."

However, Frank Lew suggested that we modify the sentence to read as in previous draft:

"In systems where smoke dampers are not installed on each floor at the junctures of return air plenums and the return air riser, and which dampers are controlled by nearby duct smoke detectors, exhaust fans shall serve no more than 3 floors above its level."

Committee accepted this solution.

2. Correction of paragraph specifying the "Engineered Smoke Control Systems." The sub-paragraph C "A system which will provide a level of smoke containment and venting comparable to methods A or B above."

The problem is with the words: "... comparable to methods A or B above." A comparable method would be required to handle the air for five floors.

The committee wanted to delete "Comparable to methods A or B" since ASHRAE wanted a truly engineered system without any provisions of other methods.

Mr. Lew suggested to postpone the change to a later date in order to expedite the code approval by the City.

The committee approved this approach.

Therefore, this item will be taken up in the future as soon as the code is officially issued.

There being no further business the meeting was adjourned on motion duly passed.

NEW ENERGY MANAGEMENT ASSOCIATION FORMED

A new association dedicated to advancing sound energy management practices in corporate and governmental facilities has been established in San Francisco. The Association of Professional Energy Managers, incorporated in August 1983, offers professional energy managers a unique opportunity to stay abreast of state-of-the-art energy management techniques and technologies and to maintain close contact with the professional energy management community.

The Association offers monthly meetings to members to exchange ideas and listen to guest speakers, reduced rates for energy management seminars, and a subscription to the monthly newsletter, "The Professional Energy Manager."

HEAR YE!! HEAR YE!!

The first clarion call was sounded at the June meeting of the Chapter for volunteers for the Society's Winter Meeting in San Francisco in 1986.

There were some modest responses.

To use the old axiom - Tempus Does Fugit!

Now, on which one of these Committees are you willing to serve?

Reception - Publicity - Tours - Transportation - Welcome Party - Ladies Activities - President's Luncheon - International Activities - ASHRAE Exposition Booth - Monitors - Finance - Ticket Sales - Printing & Posters - Sports - AND - Maybe Others We Haven't Thought Of Yet - ?

As a reward for your being a member of the Host Committee, there is no registration fee - currently \$45.00.

The larger reward is being able to sit in on the Technical Sessions on subjects, such as, Smoke and Fire Control - only a bare portion of which you heard at our October meeting.

Pick a Committee or two or three of your choice and advise Tom White at 575-81 South Rengstorff Avenue, Mountain View, CA 94040 or at an early Chapter meeting.

DON'T MISS OUT ON A GREAT OPPORTUNITY!

Scholarship Raffle

Thanks to G. J. Yamas Company's contribution to the Golden Gate ASHRAE scholarship raffle, three bottles of select liquor were transformed into nearly \$100 for the fund at the November meeting.

Raffle prizes for the December meeting have not yet been contributed; so if any Santas among the members are buying tax-paid fluid for the Holidays, please remember the scholarship fund's worthy need! Please call Sheryl Almon at 974-5881, extension 53, to contribute.

Thanks again to the Yamas Company for their support. Let me hear from you to ensure the continuing success of the monthly raffle.

Code Committee Meeting 10/8/83

1. ICBO's proposed new UBC Section 1717, Smoke Management was discussed. This section is to be brought up at an ICBO meeting next spring. The Code Committee should comment soon so that revisions can be made. Committee members are requested to review the proposed section and consider at the same time the existing Sections 1807 and 1907. Please bring your comments to the next Committee meeting.

2. Has anyone noticed the requirement in Section 1009 of the 1982 UMC to provide smoke detectors and automatic shutoff of any system providing heating or cooling air in excess of 200 cfm? Does anyone object?

3. Next Committee meeting will be Tuesday, December 6, at 2:00 p.m. in the offices of Glumac and Associates.



VOLUME XXIII NO. 3

DECEMBER 1983

MEETING NOTICE

DATE: December 1, 1983
 TIME: 5:30 - 6:30 Social Hour
 6:30 Dinner/Meeting
 LOCATION: Engineers Club
 160 Sansome Street,
 16th Floor
 San Francisco, CA
 PHONE: (415) 421-3184

PROGRAM

"Whose Problem Is This"

A round table discussion by a leading building owner, consulting engineer, contractor, and equipment supplier on some of the problems and pit falls each one faces in the construction and operation of a building and how to avoid the same problems in the future.

This promises to be a very lively discussion between Bert Bomersine, Bob Voelz, Gino Colacchia and Jack Kniveton who have faced more problems over the past twenty-five years than they wish to remember. Don't miss this meeting as it is a great opportunity to share in some of the their experiences. We may get a \$100,000 education for the cost of a \$14.50 dinner ticket.

HONOR ROLL

University Mechanical Contractors
 1668 Factor Avenue
 San Leandro, CA 94577

Phone: (415) 351-4060

Celebrating our 20th year of service to the Bay Area:

Gino Colacchia
 Bill Lieber
 Rick Magarian
 Hank Mouw

PRESIDENT'S CORNER



Remember, the students from U. C. Berkeley student chapter are meeting with us. Please help us by purchasing dinner tickets for the students.

Also, please mail in your dinner reservation cards.

Hope your Holidays are happy.

The Great PGandE Energy Expo
May 22, 23, & 24 - 1984
Oakland Convention Center

PGandE, in cooperation with government institutes, is holding an energy conservation exposition geared toward commercial, industrial and agricultural customers.

They expect 200 or more exhibitors and 4,000 visitors.

ASHRAE, a co-sponsor, is responsible for obtaining four to six qualified speakers for a three hour HVAC-related Technical Session. Presentations are to be approximately twenty-five minutes long followed by a ten minute question and answer period. The HVAC Session will be held Thursday afternoon, May 23.

We are soliciting papers from those who would be interested in presentations of HVAC related energy conservation ideas and experiences. Preference will be given to speakers who can document actual project results. Responses are required by December 15, 1983.

If interested contact:

Dart Rinefort
Glumac & Associates, Inc.
Four Embarcadero Center, Suite 1570
San Francisco, CA 94111
(415) 983-7667

If interested in exhibiting products, contact:

Elliott Boardman
Government Institutes
966 Hungerford Drive #24
Rockville, MD 20850
(301) 251-9250

MINUTES OF LAST MEETING

November 3, 1983

Attendance: 78 Members
42 Guests

1. The meeting was called to order at 7:30 by President Jim Taylor at the Engineers Club.
2. Self-introductions were made.
3. Allan Moyal reported on the plan to make the annual Seminar a one full day meeting on smoke control. Date will be in late March.
4. Dart Rinefort asked for 6-10 volunteers to present 20-30 minute presentations each for the planned PGandE Energy Conservation seminar to be held in May. Deadline for volunteers is December 15, 1983. PGandE expects 4,000+ attendees at this seminar/exposition.
5. Jim Taylor reported that the ASHRAE/ASPE product show netted ASHRAE approximately \$4,000. There were approximately 1200 attendees.
6. Gino Colacchia called for Honor Roll donors.
7. Ted Stalzer advised that badges were kept in two places -- active members' on the board and less active members' in labeled cans. Members are asked to get their badges from the reception committee if their names are not on the boards so that badges can be kept in order. The committee maintains a card file with all badges listed. Ted also reported that all new badges were being ordered with only one instead of two clips. Members are urged to convert their existing badges themselves.

8. Gary Harbison reported that the UC student chapter has asked that their student night be at the December meeting.

9. Cal Poly professors Bob Rodgers and Stan Shaner thanked the Chapter for its support and reported on their two day field trip.

10. Sharon Almon conducted the raffle with prizes donated by G. J. Yamas.

11. Kevin Dowling introduced speakers Gene Valerio and Bob Swezey from Air Filter/Control who presented a lively, informative talk on the application of air filters to HVAC systems, including some history, types of filters, and do's/don'ts. Do specify efficiency by ASHRAE Std 52-76. Use arance for low efficiency, less than 20%, and atmospheric dust spot for high efficiency, greater than 20%. Do use short bags on VAV systems. Do specify temporary construction prefilters. Do specify final as well as initial pressure drops. Don't specify UL 1 filters. Don't use prefilters on high efficiency filters less than 85% atmospheric dust spot. Use carbon gas filters on high molecular weight gases like hydrocarbons and use activated alumina type gas filters on light molecular weight gases like H₂S.

12. Meeting was adjourned at 9:20

Berkeley Student Chapter Night

The Berkeley Student Chapter will be coming to the December meeting. We are expecting about fifteen students to be our guests and want to encourage them to remain active in ASHRAE. We ask Golden Gate members to purchase an extra meal ticket for the students. We'll have someone at the door to collect the tickets.

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
Dec. 1, 1983	Nov. 10, 1983
Jan. 5, 1984	Dec. 15, 1983
Feb. 2, 1984	Jan. 12, 1984
March 1, 1984	Feb. 9, 1984
April 5, 1984	March 15, 1984
May 3, 1984	April 12, 1984
June 7, 1984	May 17, 1984

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1983-84 OFFICERS

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

BOARD OF DIRECTORS

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Dart Rinefort
Sherman Brown

MAIL OR PHONE NEWS TO:

Barbara Dilts, Editor
c/o PG&E
30th Floor, Suite 3001
1 Market Plaza
San Francisco, CA 94106
(415) 974-5881

ASHRAE WORKSHOP PROGRAM UPDATE

The Cal Poly Student Chapter of ASHRAE would like to extend its thanks to the Golden Gate Chapter for its generous annual donation. In this time of tight university budgets and cut-backs in state spending, these funds are very useful in maintaining an Air Conditioning, Heating and Refrigeration Program that is up to standard with today's technology. While the new call from university administrators is for industry participation and financial support of their related engineering programs, ASHRAE members can be proud of the fact that this has been an unwritten but obviously beneficial ASHRAE policy for years.

The money donated by the Golden Gate Chapter has been used to fund workshop programs for students primarily from the Bay Area. These workshops allow the participating students to be paid for upgrading and maintaining lab testing equipment, test stations and lab experiments. Some of the lab experiments developed and maintained through this program have been an air-cooled screw compressor chiller unit, reciprocating compressor test station, shell and tube heat exchanger experiment, and a fan testing station. Recent participants from the Bay Area have been Dan Nielson, Charles Buada, Ben Sun, John Lionakis, Ruell Miller, Tim Souza, Brian Reilly, Andy Smilovich, Doug Miller and Mark Hardin. These students received valuable knowledge through hands-on experience, a principle which the Cal Poly Air Conditioning Program has always promoted.

The experience gained through these workshop programs helped the Air Conditioning Club students in designing and building an ice-skating rink for last year's Poly Royal Festival. The ice rink and lab exhibits brought the highest honor of "Sweepstakes Award" to the Air Conditioning Club in the inter-school competition. This was the first time any department/club in the School of Engineering and Technology has won this highest honor.

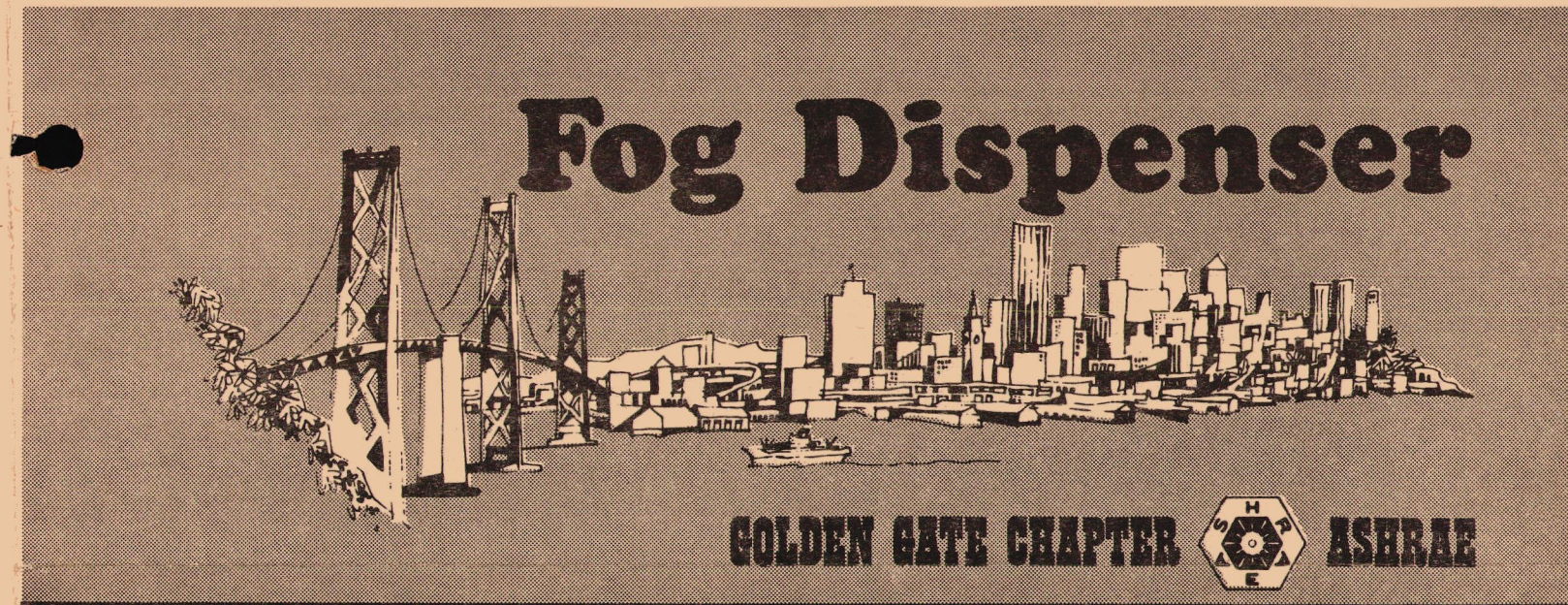
The Cal Poly Student Chapter of ASHRAE and its faculty advisors again would like to thank the members of the Golden Gate Chapter for their annual donation and express an open invitation to visit our lab facilities whenever in the San Luis Obispo Area.

I would like to thank those members who have donated to the Workshop program. So far, we are well ahead of last years figures. If you have not donated yet please do so. Send your donations to:

Bruce Montgomery, Scholarship Committee Chairman
Montgomery & Roberts - Consulting Engineers
925 Kearney Street, El Cerrito, CA 94530

ASHRAE STANDARDS

The Chapter has received information that ASHRAE Standard 100.1 P, "Energy Conservation in Existing Buildings--Low Rise Residential," has been cancelled. The Standards Committee wishes to express its appreciation to those who worked on the development of this Standard.



VOLUME XXII NO. 4

JANUARY 1983

MEETING NOTICE

DATE: January 6, 1983
TIME: 5:30 - 6:30 Social Hour
6:30 Dinner/Meeting
LOCATION: ENGINEERS CLUB
160 Sansome Street
16th Floor
San Francisco
Phone: (415) 421-3184

PROGRAM

"Climatic Data for Region X"
Bill Holladay, the coauthor of the new Temperature Data Manual, will present the technical background behind the Manual. This should provide a greater insight into effective and rational use of the extensive data in the Manual.

HONOR ROLL

MCC POWERS
new address:

14709 Catalina Street
San Leandro, CA 94577
Phone: (415) 483-1000

Dick Almini - Branch Manager
Bill Kunz
Fred Brunk
Leonard Bommersbach
Jack Nichols
Billy Gee
Phil Madera
Bill Schultz
Dick Lorenz

PRESIDENT'S CORNER

As we approach the end of 1982, it's timely to review the activities of the past year and to think about what is ahead of us in 1983.

Looking back, we find that 1982 was a good year for the Golden Gate Chapter. We showed a moderate growth in membership and financially we kept our heads above water.

The expenses of preparing for the publication of "Climatic Data for Region X" were a tremendous drain on our treasury; particularly, as the income from our Technical Seminar was below normal. As a result, we were unable to make our usual contribution to ASHRAE Research.

Several of our standing committees have been very active. As I've said before, it's the generous donation of your time to committee activities that makes the Golden Gate Chapter and the Society click. Each committee contributes to our success.

Between now and July we'll be very busy.

The 1983 Seminar has established the theme "Old Problems and New Technologies in HVAC Design." Look for their meeting schedule elsewhere in this issue.

Sales of Climatic Data books

continue strong and proceeds will enable us to make substantial contributions to ASHRAE Research and to local Scholarship funds.

It looks as though we'll have another Product Show in conjunction with ASPE next fall. Last year's was very successful--this year's will be even better.

The board approved a proposal by Bob Montgomery to initiate a study, under the Energy Conservation Committee, to evaluate the performance of new State and local government buildings as compared to existing and proposed Nonresidential Energy Standards as well as ASHRAE 90 CRITERIA. This will be undertaken with the support of the other Northern California chapters. It will be interesting to see how some of the new buildings compare with older ones and whether any of them can meet the "energy budgets." All of our committees will continue to be working on their assigned tasks. Two of them will present the programs at our upcoming meetings this spring. The Code Committee is resolving last minute differences with the City of San Francisco adoption of the Uniform Building Code.

Looking forward to a busy spring. I wish you all a Happy and Properous New Year.

Tom Campbell, President

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
Dec. 2, 1982	Nov. 11, 1982
Jan. 6, 1983	Dec. 16, 1982
Feb. 3, 1983	Jan. 13, 1983
Mar. 3, 1983	Feb. 10, 1983
Apr. 7, 1983	Mar. 7, 1983
May 5, 1983	Apr. 14, 1983
June 2, 1983	May 12, 1983

ANNOUNCEMENTSTHANKS!

Thanks to Allen Wicks and the SMACNA Chapters of the Greater Bay Area for an excellent December program, not to mention the wine they provided with dinner.

DINNER RESERVATIONS -- AGAIN!

If you sign up for dinner, please attend or call the Engineers Club. At December's meeting 140 signed up and 124 attended! Hope you enjoyed the football game.

NEW FEATURE

Organizations and individuals may now place employment ads in the Fog Dispenser. Please limit the ad to 4 lines. Also, we request a donation of \$25 for ASHRAE Research.

RAY BASS TO RETIRE

Syska & Hennessy will be honoring Ray Bass with a retirement dinner; we feel that he is a special person and would like to recognize his twenty year contribution to us here as a firm as well as a lifetime career with the engineering community in San Francisco.

The retirement dinner will be held at the Engineers Club on Thursday, January 6, 1983. Although this is a private dinner, the ASHRAE dinner will be held the same night. We're sure that Ray would be happy to see all of you at the bar before the ASHRAE dinner.

BAY AREA ENGINEERING COUNCIL

The San Francisco Bay Area Engineering Council in an effort to sponsor and promote educational activities and

public relations on scientific and engineering material acts as a coordinator to refer requests for speakers on engineering subjects. Our chapter has been asked to provide a list of names of members who would be willing to present ASHRAE related programs in support of the Council's promotional activities.

If interested, please contact Tom Reinarts, Dart Rinefort or any board member for further details.

The future luncheon meetings of the Bay Area Engineering Council will be January 18, March 15, April 19, May 17, and June 21, 1983, at the Engineers Club of San Francisco. Call the Club at (415) 421-3184 for reservations.

The February meeting will be the Engineers Week Banquet on Thursday, February 24, 6 p.m., at Hs. Lordships in Berkeley.

RAFFLE REPORT

Special thanks for donation of December raffle prizes goes to Delucchi Sheet Metal Works, courtesy of Mr. Max Wolff; and to Peabody Gordon-Piatt, Inc., my employer. The result of these donations is that 100% of the raffle proceeds have gone to the Golden Gate Chapter ASHRAE Scholarship Fund.

If you and/or your firm would like to donate raffle prizes for the January--or one of the other upcoming meetings, please contact me at (415) 932-4201.

Thanks for your support of the Chapter Scholarship Fund Raffle!

Tom Judson
Raffle Committee Chairman

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EDUCATIONAL OPPORTUNITIES-Continued-CITY COLLEGE OF SAN FRANCISCO
AIR CONDITIONING AND REFRIGERATION
TECHNOLOGY COURSES - SPRING 1983

A series of courses is offered at the City College 50 Phelan Avenue Campus which lead to a certificate in air conditioning and refrigeration technology. One interesting and practical course in this series is IT-141, "Thermofluid-Measurements Laboratory." This course consists of laboratory training in the elementary concepts and methods of pressure, temperature, and fluid flow measurement. Emphasis in course problems is applied to small, mechanical refrigeration systems and simple fluid flow systems with "hands-on" opportunity for the student.

The IT-141 course will be offered during the Spring Semester 1983 meeting Monday and Wednesday evenings from 7-10 p.m. with the first class scheduled on February 9, 1983.

Call the Engineering Department Office at 239-3505 for additional information.

SAN FRANCISCO STATE UNIVERSITY
TECHNICAL WRITING COURSE

On-the-job writing for technical and scientific professionals will be the focus of a three-part course offered this spring semester.

TECHNICAL WRITING FOR DESIGN PROFESSIONALS will cover the main types of on-the-job writing: professional papers, technical reports, and proposals. Each of three modules will define the desirable product and guide the writer through the process of achieving it under normal working conditions, giving special attention to typical problems and practical

solutions. Each module may be taken independently.

Module 1: The Professional Paper covers the full process from focusing the subject to placing the paper with a publication. Wednesdays 6-9 p.m., February 2-23.
Module 2: The Technical Report focuses on the range of writing skills needed for a technical report, and offers guides to management of a successful report. Wednesdays 6-9 p.m., March 2-23
Module 3: The Proposal offers practice in the planning, management and writing of a winning proposal. Wednesdays 6-9 p.m., April 6-27.

All of the workshops will take place at the Downtown San Francisco Center, 800 Mission Street, room 621. The cost of each module is \$55.

For registration information, call the Office of Extended Education, (415) 469-1373.

1983 International Daylighting
Conference

The 1983 International Daylighting Conference will be held February 16-18, 1983, in Phoenix, Arizona. It is intended to provide a multi-disciplinary forum for examining the differing perspectives of designer, researcher, engineer, architect, building owner, government and utility. The conference will address the effects of daylighting on occupant comfort and well-being, health effects, aesthetics, lighting quality as well as questions of visual performance, energy savings and utility load management.

For more information, contact the Lawrence Berkeley Laboratory, a conference Sponsor, at (415)486-4000.

MINUTES OF LAST MEETING

December 2, 1982

Attendance: 68 Members
55 Guests

- The meeting was called to order by President Thomas Campbell at the San Francisco Engineers Club at 7:45 p.m. Self introductions of members and guests followed. Mr. Campbell extended a special welcome to Northern California SMACNA members and building officials.
- The minutes of the November 4th meeting were approved as published in the November Fog Dispenser.
- Don Bryant spoke briefly about the UC Extension programs in HVAC subjects and certificates of completion were presented to the following students:

J. Theodore Bradfield
Craig E. Brown
David A. Cassani
Henry N. Kwan
Ho M. Lee
Everett F. McDaniel
Alice Widmer Meyer
Martin E. Wasser
- Frank Mayhew (co-chairman of the Seminar Committee) announced the Technical Development Seminar for next year had been finalized and is entitled "Old Problems & New Technologies in HVAC Design."
- Tom White reminded members the 1986 Semi-Annual ASHRAE meeting and show will be held in San Francisco.
- Tom Campbell stated help wanted ads can now be placed in the Fog Dispenser. A donation of \$25 for ASHRAE research is

requested for each ad.

- Glenn Claycomb, Code Committee Chairman, announced the Committee is meeting with the S.F. Building Department to review the Department's proposed revisions to Chapter 18 of the UBC which will be incorporated into the S.F. Building Code.
- Arlen Allinger announced he teaches HVAC courses at City College and asked members to encourage students on their staffs to enroll in the classes.
- Tom Campbell stated the Chapter can win points towards the ASHRAE Award of Excellence by having members participate on National ASHRAE Committees and encouraged members to serve on those Committees.
- The meeting was adjourned until 8:35 p.m. when Tom Judson conducted the raffle.
- Allen Wicks introduced John Stratton from the National SMACNA headquarters in Washington, D.C., the guest speaker for the evening.
- Mr. Stratton gave a slide presentation and spoke on SMACNA Duct Construction Standards. The Standards have been incorporated into the 1982 UBC and the new tables give a choice of sheet metal gauges and corresponding reinforcement sizes and intervals. The Standards do not take all of the rumble out of duct systems, especially on systems that start and stop frequently. The Standards should result in not more than 5% duct leakage and there is

(Continued - Page 4)

MINUTES OF CODE MEETING, 12/7/82

Present: G. Claycomb J. Lewis
G. Colacchia R. Voelz
I. Tartakovsky

1. The Committee reviewed S.F. BBI's draft of amendments to 1979 UBC Chapter 18.
2. The Committee questioned the proposed second paragraph of 1807 (b) requiring inspection and testing of Life Safety Systems by a registered engineer. G. Claycomb verified that this language came from Code Ruling No. 75-10. No recommendations will be made on this item.
3. It was felt that proposed 1807 (g) 4 belongs in 1807 (g) 3a.
4. It was felt that proposed 1807 (g) 5 is very unclear. If the intent of Code Ruling 68-28 is to be preserved, so should the intent of the language: "Smoke control systems shall not be designed to exhaust air for more than three floors above the fan location level."
5. It was felt that proposed 1807 (g) 6 is superfluous; UBC has no requirements for supply air to toilet rooms. Furthermore, ventilation requirements are covered elsewhere in the Code. The Committee proposes deleting this paragraph.
6. It was felt that proposed 1807 (g) 7 exceptions missed some important ASHRAE recommendations concerning transfer of air between plenums as well as fan assisted VAV boxes. Committee recommends adopting its previous recommendations.
7. Committee feels in general that its own wording of 1807 (g) was more clear than proposed BBI wording.

8. Committee strongly disagrees with proposed requirement concerning no reduction to less than 1 hour construction in a sprinklered building in 1807. (m) 1.
 9. Committee felt proposed wording of 1807 (m) 11 is unclear.
 10. Committee again recommends adoption of its proposed exception number 3 to UMC Chapter 20 Section 2002. J as follows:
 - "3. Grease hood ducts may terminate other than at roof provided that:
 - a. An approved fire suppression system is provided for hood and entire duct run.
 - b. Discharge outlet shall not be within 15 feet of any window or other openings on subject building or adjacent building unless windows are not openable and unless tempered or wire glass is used."
 11. G. Claycomb will contact F. Lew to see if the Committee can meet with him once more to help clarify the wording of 1807.
 12. Next meeting will be January 11, 1983. Call to confirm.
- MINUTES OF LAST MEETING (continued from page 3)
- approximately a 20% cost variation between the seven SMACNA duct standards which should be closely identified on the drawings. Mr. Stratton also stressed the importance of showing fire dampers on the contract drawings and noted flexible duct should not be installed less than 4 inches above a ceiling according to Underwriters Laboratory test procedures.
13. Following a question and answer session, the meeting was adjourned at 9:50 p.m.

EDUCATIONAL OPPORTUNITIES

1983 TECHNICAL DEVELOPMENT SEMINAR
OLD PROBLEMS - NEW SOLUTIONS

FIRST SESSION - March 2, 1983 -
Chilled Water Systems

Squeeze more tonnage per kilowatt hour out of your chillers and chilled water system.

SECOND SESSION - March 9, 1983 -
Air Systems

Refinements are needed to make air handling systems work properly and efficiently. Pressurization of buildings and spaces is not always as straightforward as it seems.

THIRD SESSION - March 16, 1983 -
Cogeneration and Storage

Can you get something for nothing? Co-generation is one way of doing it. Don't throw rocks in your glass house. Rock storage can save you energy.

FOURTH SESSION - March 23, 1983 -
Computers for Mechanical Engineers

Computers are becoming a way of life. Several approaches to applying computers in mechanical design are offered. Which one is for you? You may need a slide rule to figure this one out.

Tax deductible donation to ASHRAE Research is \$40 for the four sessions.

Co-chairman
Frank Mayhew - G.J. Yamas Company
Gary Harbison - Marley Company

UC EXTENSION OFFERS CONTROL COURSE

University Extension, University of California, offers a course in Controls and Control Systems for Air Conditioning and Heating Systems.

Monday Evenings, 7:00-9:30 p.m., 8 sessions, Feb. 7 to March 28, 1983, University Extension Center, 55 Laguna Street, S.F. (2 units)

The purpose of the course is to increase understanding of the principles involved in selecting and designing pneumatic, electric, electronic and automated control systems related to air conditioning and heating systems. Application will be made to not only new buildings and heat recovery equipment, but also to retrofit any existing building systems.

Topics will include, but not be limited to, controls related to fan systems, zone and terminal units, chilled water systems, hot water systems, automation, retrofit and special purpose controls.

Instructors: Glenn Montoani, P.E., Johnson Controls, Inc., Brisbane, CA and Frank W. Mayhew, G.J. Yamas Co., South San Francisco, CA.

Enroll by mail, in person, or by telephone. For enrollment information, call 642-4111 (Berkeley), or 861-6833 (S.F.).

For further information, call Continuing Education in Engineering, 642-4151 (Berkeley), D.C. Bryant, 584-0765 (S.F.).

(Continued - Page 6)

ASHRAE Technical Development Seminar

At this year's ASHRAE Technical Development Seminar we are asking for literature and papers relating to the topics being covered in the presentations. This is being done in order to give attendees a full package of handouts to take back to work with them.

If you are an engineer with a technical paper on one of the topics being presented or if you are a manufacturer with literature for equipment of the same type being presented, please contact either Frank Mayhew at 761-5123 or Gary Harbison at 956-4964 for details on how to get your handouts included. We will need a reproducible copy of any technical papers and we will need 200 copies of any literature (three hole punched). Papers and literature must be in our hands by February 20.

RAFFLE REPORT

Raffle prizes for the February meeting are being supplied by Ocean Shore Boiler Works, courtesy of Jim Waters. This gift will make it possible for 100% of the February raffle proceeds to go the Golden Gate Chapter ASHRAE Scholarship Fund.

In the event you and/or your firm would like to donate raffle prizes for a future meeting, please contact me at (415) 932-4201.

Your continued support of the Chapter Scholarship Fund Raffle is very much appreciated.

Tom Judson Raffle
Committee Chairman

MINUTES OF LAST MEETING -CONTINUED-

16. Dick Charles introduced the guest speaker for the evening, Mr. Bill Holladay, who developed the ASHRAE Climatic Data Handbook for Region X.

17. Mr. Holladay gave a very interesting slide presentation and talk on the history of the Handbook and the theory behind the development of the climatic data.

18. Following a questions and answers session, the meeting was adjourned at 9:20 p.m.

Correction

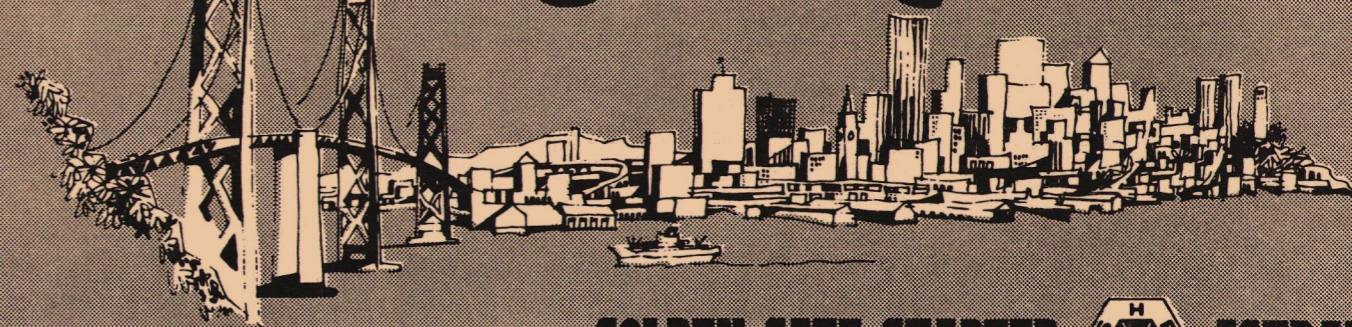
The course, Controls and Control Systems for Air Conditioning and Heating Systems, offered by University Extension, University of California, will begin Monday, February 28, 1983, instead of February 7, 1983, as announced in the January FOG DISPENSER. The course will be held in the PGandE Building, 245 Market Street, S.F. (Entrance, 77 Beale Street)

Professional Registration

The Board of Registration for Professional Engineers of the Department of Consumer Affairs is considering new definitions of electrical and mechanical engineering in an effort to adopt more descriptive definitions. They would like to have your input and comments.

For copies of both the old definitions and the proposed changes, contact Kevin Dowling (398-7667).

Fog Dispenser



GOLDEN GATE CHAPTER  **ASHRAE**

VOLUME XXII NO. 5

FEBRUARY 1983

MEETING NOTICE

DATE: February 3, 1983
 TIME: 5:30 - 6:30 Social Hour
 6:30 Dinner/Meeting
 LOCATION: ENGINEERS CLUB
 160 Sansome Street
 16th Floor
 San Francisco, CA
 Phone: (415) 421-3184

PROGRAM

"Operating Energy Conservation Projects"

The following panelists will make short presentations on operating energy conservation projects.

- 1) Bill Spence, Ocean Shore Boiler Works, "Boiler Plants"
- 2) Jim Hall, Brown & Caldwell, "Free Cooling & Heat Recovery"
- 3) Lewis Brooks, Hussmann Refrigeration, "Supermarkets"
- 4) Jim Taylor, TK & Associates, "Ice Storage"

This format has been very well received in the past and promises to be very interesting.

HONOR ROLL

Delucchi Sheet Metal Work, Inc.
 1526 Powell Street
 San Francisco, CA 94133

Phone: (415) 781-6988

Bill Delucchi
 Max Wolff
 Jim McCormick
 Ken Magee

PRESIDENT'S CORNER

This is going to be brief. Barbara Dilts, our Editor, has a deadline to meet and I've let this slide to the point where there's no time left. I'll offer the weak excuse that a heavy travel schedule kept my mind off of ASHRAE business.

Speaking of travel, are you planning to attend the Atlantic City meeting? I'm always surprised at the number of Golden Gate Chapter members I run into at the annual meetings. There would probably be more if it was held in some more pleasant location than Atlantic City in January.

The minutes of the December meeting, reprinted herein, contain announcements and requests for help from several of our committee chairmen. How about it - won't you help?

The roster is due out momentarily. As usually happens, some of our old members won't be listed because they forgot to pay their dues. Unfortunately, they won't be reading this column either, as the Fog Dispenser is only mailed to active members. If you run into people who should be members, won't you remind them that we still love them, and ask them to join-up with us again.

Tom Campbell, President

HELP PRESERVE THE HISTORY OF THE GOLDEN GATE CHAPTER

Tom White, Chapter Historian, is trying to preserve the history of our Chapter. He needs any official records, unofficial records, old Fog Dispensers, programs, assorted artifacts and memorabilia.

Spring cleaning time is upon us, so search your files, cabinets, closets and attics. Then send all that relates to our Chapter to Tom White.

1983 Chapter Regional Committee Conference (CRC)

The 1983 Chapters Regional Committee Conference will be held at the MGM GRAND Hotel, Reno, Nevada, on Friday, May 13 and Saturday, May 14, 1983. Early registration and golf and tennis tournaments will be on May 12, 1983. Events will include business meeting, technical sessions and dinner show on May 13 and Workshops, Presidents' luncheon and business meetings on May 14. Special spouses' activities are being scheduled for the 12th, 13th and 14th. All members of ASHRAE in Region X are invited to attend.

Technical Development Seminar

The flyer for this year's Technical Development Seminar is inclosed in the Fog Dispenser.

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Meeting date	Copy deadline
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June 2, 1983	May 12, 1983

MAIL OR PHONE NEWS TO:

Barbara Dilts, Editor
30th Floor, Suite 3001
1 Market Plaza
San Francisco, CA 94106
(415) 974-5881

MINUTES OF LAST MEETING

January 6, 1983

Attendance: 62 Members
17 Guests

1. The meeting was called to order by President Thomas Campbell at the San Francisco Engineers Club at 7:20 p.m. Self-introductions of members and guests followed.

2. The minutes of the December 2nd meeting were approved as published in the December Fog Dispenser.

3. Tom Campbell reminded members the Region X CRC meeting will be held in Reno, Nevada, on May 13, 14, & 15 at the MGM Grand Hotel and encouraged everyone to attend.

4. Tom Campbell announced that the Chapter has nominated Tom Simonson for this year's Tau Beta Pi eminent engineer award.

5. The Chapter has been asked by the Engineers Club's lawyer to support the Club in its efforts to be recognized by the IRS as a business league rather than a social club.

6. A short note from Clyde Wilson Reid was read by Tom Campbell thanking the members for the get well card they sent him during his recent illness.

7. Gary Harbison, Education Committee Chairman, announced the Committee is working with students of the various local colleges to generate interest in ASHRAE and the air conditioning industry. The controls course planned at the University of San Francisco has been rescheduled to begin on February 28.

8. Solar Committee member, Dave Rifkin, reported the March meeting of the Committee will be addressed by State personnel on the topic of tax incentives for solar installations. Members are invited to attend.

9. Frank Mayhew, Seminar Committee Co-Chairman, reminded members the Technical Seminar this year is entitled "Old Problems, New Solutions" and asked for additional information from manufacturers and suppliers on the various seminar topics.

10. Doug Daniels, Energy Committee Chairman, asked members who have designed buildings which have been in operation for more than one year to consider entering them for an ASHRAE energy award.

11. Roster Committee Chairman, Bill Chapman, announced the Roster is going to the printer January 7 and asked for members to verify their correct addresses & telephone numbers.

12. Bruce Montgomery, Scholarship Committee Chairman, asked for donations to the Workshop fund.

13. Jim Taylor announced the sales of the Climatic Data Book are proceeding well.

14. Sherman Brown, Research Committee Chairman, asked members to make a special effort and contribute to ASHRAE research this year.

15. The meeting was adjourned until 8:10 pm when Tom Judson conducted the raffle.
(Continued - Page 4)

NOMINATING COMMITTEE REPORT

The Chapter Nominating Committee met on February 8, 1983, to consider candidates for Chapter offices for the 1983-1984 year. The members of the Committee are:

George N. Aronovsky
Thomas C. Campbell (ex-officio)
James M Holden
Jack A. Palmer
Eugene L. Valerio, Chairman

The following candidates will be proposed to the membership at the March General Meeting:

Keven Dowling	President-Elect
James G. Nemechek	Secretary
David Rifkin	Treasurer
W. Dart Rinfort	Board Member
Sherman H. Brown	Board Member

Since they have previously been elected, James G. Taylor and Thomas C. Campbell will automatically assume the offices of President and Past-President.

All candidates are members in good standing of both the Society and Chapter.

HISTORICAL UPDATE

The response from Tom White's appeal for historical records of our Chapter has produced results. Jack Palmer, Carl Jordan and Dick Friedman have produced materials filling many gaps, especially Dick. He has provided records on Gus Gendler's, Arel Berrier's, and even Jack Kniveton's tours of duty. How about some more from Arel, Jack, Frank Crouch, Tom Simonson, Rudy Pribus, Herb Duncan, Don McCleod, Eric Roberts, Reg Crushing, Larry Shea, and Irving Alger?

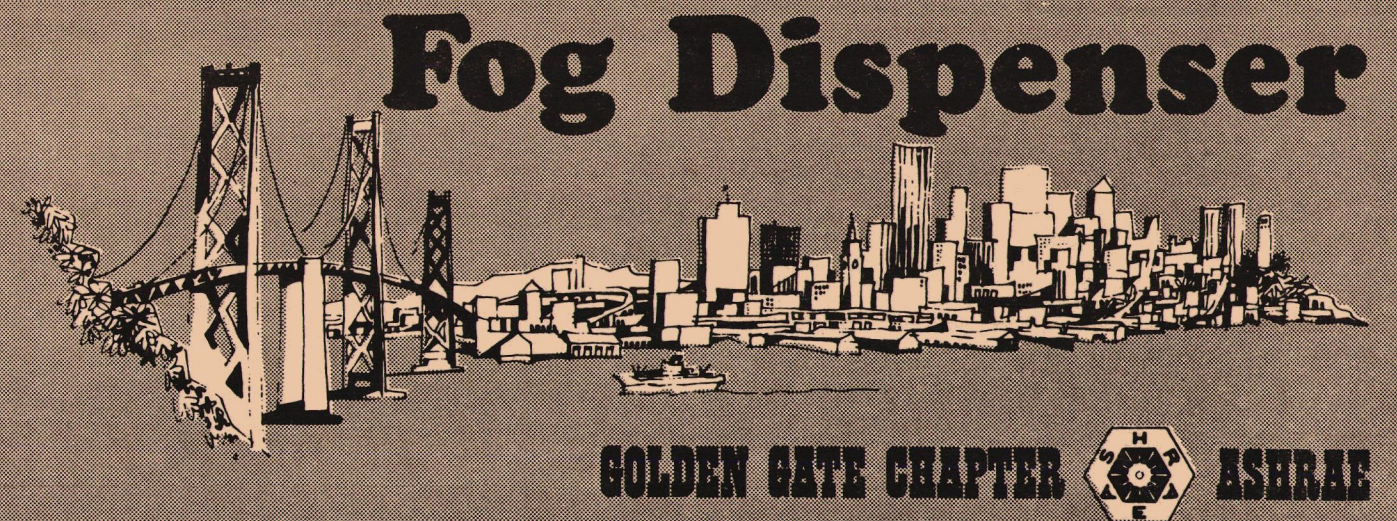
Based on what he has, Tom says he has a lifetime job just sorting it out, but he still wants to extend that lifetime.

ENERGY EXHIBIT

An exhibition of color photographs documenting energy use in Nepal will be shown at the Engineers Club prior to this month's meeting. Clinton Andrews, P.E., of Marion, Cerbatos & Tomasi Engineers produced the images during a recent visit to that mountainous Asian Country.

Nepal is a developing nation with almost no existing infrastructure and no fossil fuel resources. Most of their energy comes from what Americans consider to be "alternative" sources: solar, wind, wood, bio-gas and hydro-electric power. The pictures explore the problems faced by the Nepalese as their energy usage changes due to the pressures of modernization.

This Spring the Solar Committee will be hosting tours of several of the Bay Area's largest and most interesting solar installations. Those interested in participating should check future issues of the Fog Dispenser for dates and locations.



VOLUME XXII NO. 6

MARCH 1983

MEETING NOTICE

DATE: March 3, 1983
TIME: 5:30 - 6:30 Social Hour
6:30 Dinner/Meeting
LOCATION: ENGINEERS CLUB
160 Sansome Street
16th Floor
San Francisco, CA
Phone: (415) 421-3184

PROGRAM"Third Party Solar Financing"

Mr. Peter Barnes, founder and past president of the Solar Center, will discuss private, innovative financing and its tax incentives; other current tax incentives, utility rebates, and depreciation.

He will then discuss an actual, large, recent installation and how some of the above financing methods were applied.

HONOR ROLL

Marley Cooling Tower Company
233 Post Street, #302
San Francisco, CA 94108
Phone: (415) 956-4964

Ward Clark
Tom Dreher
Gary Harbison
Linda Denison

PRESIDENT'S CORNER



Here it is March already, with our summer break just around the corner. Time flies ... when you're having fun. Unfortunately, we only have three more months in which to accumulate the minimum 1900 points which will qualify the Golden Gate Chapter for the Presidential Award of Excellence.

We can earn up to 600 points for membership. Headquarters keeps track of these figures for new member growth and for advancements. If you're an Associate or an Affiliate, you may be eligible for advancement. Contact Rich Leao for information.

Meeting attendance can earn us up to 550 points, based upon average attendance. So far we're ahead of last year due to the interesting programs Jim Taylor has arranged. Bring guests - they count too.

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

1982-83 OFFICERS

Thomas C. Campbell President
James G. Taylor President-Elect
Kevin F. Dowling Secretary
James G. Nemechek Treasurer

BOARD OF DIRECTORS

David Rifkin
Robert Phillips
Dart W. Rinefort

Education activities cover a number of areas. Student members - Headquarters keeps the tally. Faculty liason (must be an ASHRAE member) - do we have any? Student awards - we recently recognized eight of Don Bryant's U.C. Extension graduates. Chapter Seminar is coming up. Are you involved in Career Guidance with secondary school students? How about Continuing Education - anyone who completes a course is eligible. Student Chapters - why don't we have one at U.C. or some of the community colleges? If you've been involved in any of these activities please contact Gary Harbison.

Energy Management - Got a job you're proud of? Submit it for an award. Have you given any talks to civic or public service groups? Input to legislative groups qualifies (see what Dick Glumac's been up to). How many appointees have we to gov't. committees or councils on energy conservation? I can think of four - who else? Let Doug Daniels know what you're doing.

Technical Activities has a 650 point limit. Included are input to legislative groups on air quality, fire or smoke control; membership on advisory councils for the above or building codes. How many on ASHRAE T.C.'s, T.G.'s or project committees? We get 200 points
- CONTINUE ON PAGE 4 -

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

Mar. 3, 1983	Feb. 10, 1983
Apr. 7, 1983	Mar. 7, 1983
May 5, 1983	Apr. 14, 1983
June 2, 1983	May 12, 1983

MAIL OR PHONE NEWS TO:

Barbara Dilts, Editor
30th Floor, Suite 3001
1 Market Plaza
San Francisco, CA 94106
(415) 974-5881

CITY ADOPTS "ASHRAE"

City of San Francisco, Department of Housing, has adopted ASHRAE 1980 Systems, Chapter 37 - Service Water Heating, as a guide in the proposed regulation applicable to hotels, motels, and apartment buildings.

You might have heard recent "political discussion" regarding the heating of domestic hot water and space heatings. The Department of Housing has been getting a lot of "heat" due to inadequate heat provided by certain hotels and apartments. The Board of Supervisors acted promptly to promulgate an ordinance to require water heating capacity in accordance with ASHRAE Systems 1980, Chapter 37.

Dick Glumac was appointed by Chapter President Campbell to represent ASHRAE Code Committee as a witness at the Board of Supervisors' meetings on this matter. Mr. Glumac participated in the drafting of the ordinance and testified before the Supervisors on technical aspects of service water heatings and space comfort heatings.

Status of the ordinance as of February 1, 1983: it is under deliberation at the Supervisors' Committee.

ASHRAE TENNIS TOURNNEY

Grant Bentley reports that all the arrangements are in place for the 1983 ASHRAE Tennis Tourney at the San Francisco Tennis Club on Friday, April 22, from 1:00 till 4:00. Plan on attending this always enjoyable event for fun and a chance to win fame and a nice award.

The cost will be \$25.00 per person. Please call Grant Bentley at 398-2755 for more information.

Dear ASHRAE Members,

Mr. Robert Levy of the San Francisco Bureau of Building Inspection will address the Chapter's meeting on April 7. He will discuss the permit and inspection process in the city.

The Code Committee feels that his presence will be a good opportunity to discuss problems that you may have encountered with the Plan Check Department or the Building Inspectors. The Committee solicits a brief resume of your experience or complaints. Case histories would be welcome.

Please reply by March 10 to:

John Lewis
400 Montgomery Street, #1203
San Francisco, CA 94104
981-0290

We will organize the material and send a summary to Mr. Levy before his appearance, so that he will have a bit of time to gather his thoughts.

Glen Claycomb
Chair, Code Committee

ROSTER CORRECTIONS

1. Gus Gendler, Tom Simonson and Bob Voelz were inadvertently shown as Life Members. All three are Fellows of ASHRAE, but are not yet Life Members.

2. The zip code for Bob Voelz's business address is 94105, not 95027.

3. The By-Laws were reprinted to incorporate changes to Article 3.3 and a new Article 5.6. Please mark your copies to show that these were amended and approved in June 1982.

MINUTES OF LAST MEETING

February 3, 1983

Attendance: 73 Members
41 Guests

1. The meeting was called to order by President Thomas Campbell at the San Francisco Engineers Club at 7:10 p.m. Self-introductions of members and guests followed.

2. President Tom Campbell announced with sadness the passing away of Past President Lew Pollock earlier this week.

3. Tom Campbell announced membership grade corrections in the Roster for Bob Voelz, Tom White, Tom Simonson and Gus Gendler who are fellows of ASHRAE and read a summary of the financial status of the Chapter for members.

4. Seminar Committee Co-Chairman Gary Harbison gave a review of the topics for this year's seminar and encouraged everyone to attend.

5. Tom Campbell presented a certificate of appreciation to Gino Collacchia for his efforts last year as Honor Roll Chairman.

6. The meeting was adjourned until 8:05 p.m. when Tom Judson conducted the raffle.

7. Energy Conservation Chairman Doug Daniels then introduced the speakers for the evening: Jim Hall of Brown & Caldwell, Bill Spence of Ocean Shore Boiler Works, Lew Brooks of Hussmann Refrigeration and Jim Taylor of T.K. & Associates who conducted a discussion on energy conservation retrofit projects they had been associated with.

a) Bill Spence noted that costs of natural gas had increased 8.5 times since the Arab oil embargo of 1973

and by replacing oversized burners with more efficient equipment matched to the actual steam load on a 1950 boiler plant, he had reduced operating costs by over \$150,000 a year.

The payback period on the change over was 18 months. Bill has also developed good energy savings by adding stack dampers to boilers with payback periods of less than three months.

b) Jim Hall described a computer room retrofit project at the IRS Center in Fresno in which he replaced an existing DX refrigeration system which was expensive to operate with a chilled water system, floor mounted air conditioning units. The payback period for the change over was two years.

c) Lew Brooks spoke an energy conservation work he has done in supermarket projects where a lot of food requires extensive refrigeration. Considerable energy savings have been developed with minor modifications to the refrigeration systems.

d) Jim Taylor described an ice storage system he designed and installed in a 16,000 square foot Bank of America branch building in Livermore to reduce time of day billing charges. The system is running well and PGandE has instrumented it for energy analysis. The size of the refrigeration plant was reduced from 42 tons to 18 tons with the ice storage tank and the system runs at full capacity during off-peak periods.

8. Following a questions and answer session, the meeting was adjourned at 9:20 p.m.

PRESIDENT'S CORNER - CONTINUED -

because we have ten Board Meetings a year. Let me know what you've done in this category.

CRC attendance - Reno's not far and could be a nice business/pleasure weekend turn out.

Lastly, we come to Research Promotion. Sherm Brown needs your help; so does ASHRAE. The Chapter should be better able to contribute this year than last.

In the next few months let's put it together and win one of those badges for our Chapter banner.

Tom Campbell, President

SMACNA BOARD APPROVES \$10,000 GRANT FOR ASHRAE PROJECT

Vienna, Va. -- A \$10,000 grant was approved last week by the Board of Directors of the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) for a research project being proposed by the American Society of Heating, Refrigerating & Air-Conditioning Engineers (ASHRAE).

The project's objective is to determine the resistance to air flow of contractor fabricated galvanized ductwork. The data will be used to update charts in the chapter on duct design in the 1985 ASHRAE Handbook and the SMACNA "HVAC Duct System Design" manual.

The project was proposed as the result of SMACNA-sponsored duct fitting loss coefficient tests where it was found that the duct friction loss was actually much lower than ASHRAE charts currently indicate.

The ASHRAE tables and charts are based on figures reported by D. K. Wright in the early 1940's. It is suspected that the difference is because of changes in surface roughness due to the galvanizing processes used in the 1940's and today, and in the length of joints.

Data gathered through the SMACNA tests, which were conducted by the ETL Laboratories, Inc., in Cortland, N. Y., were reported to ASHRAE's Technical Committee 5.2 which then proposed the ASHRAE research project.

RAFFLE REPORT

February raffle proceeds to the Golden Gate Chapter ASHRAE Scholarship Fund far exceeded any month to date in this chapter year, amounting to \$102.00.

Special thanks go to Ocean Shore Boiler Works, courtesy of Jim Waters, for their donation of several bottles of fine wine and other raffle prizes -- and to Lucy Santos of L. O. Schuelke Company who led ticket sales at the February meeting.

The Chapter would like to obtain raffle prize donations for the March and future meetings. When the prizes are donated, 100% of the raffle proceeds go to the Scholarship Fund. If you would like more information, or to donate prizes, please contact me at (415) 932-4201.

Thank you for supporting the Chapter Scholarship Fund Raffle.

Tom Judson
Raffle Committee Chair