



Golden Gate Chapter
ASHRAE
370 Brannan Street
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FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVII - NUMBER 1

OCTOBER, 1997

THURSDAY - OCTOBER 2, 1997

OCTOBER PROGRAM

THE FIRST MEETING OF THE YEAR!!!

**1994 Uniform Building Code with 1997 Updates
Fire/Smoke Damper Update**

Location: Gabbiano's (upstairs)
1 Ferry Plaza, San Francisco, CA

Social Hour: 5:30 pm downstairs

Speaker: Chris Schartz
Ruskin Manufacturing
"Uniform Building Code Changes
Fire/Smoke Damper Update"

Dinner: 6:30 pm

Cost: \$30.00

To Reserve: Please e-mail or fax your dinner reservation to Kent Lim by Monday, September 29th. A fax form is included for your convenience.
Phone: 415/822-1232
Fax: 415/822-6437
E-mail: ashrae@essinc.com

Gabbiano's is located near Pier 2, behind the Ferry Building (Clock Tower), one block from the Embarcadero BART station.

The 1994 Uniform Building code has been adopted by most of the states in the western region of the United States. Virtually all of the major metropolitan areas are now using the 1994 UBC for their minimum construction requirements.

The 1994 UBC includes new provisions to prevent smoke migration through the HVAC system during a fire. Clearly, smoke is now recognized as the significant cause of injury, loss of life and property damage in building fire. Combination fire/smoke dampers are required in penetrations of area and occupancy separations, exits and corridors, shaft walls and areas of refuge. In addition, these fire/smoke dampers are required to be Class II 250°F construction. Changes implemented in 1997 affect the way smoke detectors are used with fire/smoke dampers.

Chris Schartz has more than 24 years of experience at Ruskin Manufacturing in the testing, development, manufacturing and application of fire, smoke and combination fire/smoke damper technology. He is currently Ruskin's Sales & Applications Manager for the western region of the United States.

{I have a beautiful picture of Chris but due to disabled hardware (the scanner took a dive) you have to attend to view this personage.}

DID YOU KNOW??

Did you know the difference between NPS and NPT threads? The "N" means National, "P" means Pipe, "S" means straight (not tapered) and "T" means tapered. NPT is used for pressure tight piping joints. These designations, as well as others, are defined in **ANSI/ASME B1.20.1 Pipe Threads, General Purpose.**

PRESIDENT'S MESSAGE



Here we go again starting a new ASHRAE year! It is guaranteed to be an exciting year with the 1998 Winter Meeting being held in San Francisco this January. Five years ago when I joined the Board, Tom White was promoting the 1998 Winter Meeting. I did the math and realized that I would have the honor of being chapter president during this much anticipated meeting. We should all be grateful to the 1998 host chapter committee who have taken charge of this ominous task. Tom Reinarts is chairing the committee with Dick Charles' help. Frank Mayhew and Mike Scofield are responsible for meeting monitors. We need well over 100 volunteers. Please step forward and contact them if you are able to help out. You will be rewarded with a free pass and a great experience.

The Redwood Section worked hard organizing over the summer and it paid off with a successful September meeting, a field trip to Cakebread Winery to see the mechanical systems designed by Paul Larkin's office. Unfortunately, I was unable to attend and missed an interesting tour, delicious wine tasting, and a competitive game of horseshoes. **Well done Redwood Section!**

It was a busy summer for the Board. We have met three times and have a good start on the year. We have a fine group of committee chairs. Ernie has some interesting programs planned for the year. A chapter Web page will soon be in place hopefully by the time you read this Fog. The Golf tournament is already planned for this June (got to keep our priorities straight!). John Small has organized a wonderful family picnic this year on October 18 at which The Redwood Section has challenged us to volleyball match, they may be able to play horseshoes but I think they stuck their necks out on this one. The picnic will be held in Sebastopol at Ragle Ranch Park I hope to see you there as these are really fun events.

Dennis, besides providing us with his wisdom of experience, is now the Regional Vice Chair of Research. **Congratulations Dennis!**

A few notes on the end of last year, the golf and tennis tournament were very successful. In fact, with the help of these tournaments we have contributed \$2,500 to the Eric Thor Andressen Scholarship Fund and \$1,800 to the Golden Gate Scholarship Fund.

We will hold our first chapter meeting at Gabbiano's featuring Chris Shartz from Ruskin, better known as the phantom speaker. I am really looking forward to this meeting and hope to see you there.

Respectfully Submitted,
Dan Reiter

Fog Dispenser Deadlines
The ninth of the month preceding the meeting. All the news that fits gets printed.

Mail, fax, phone or email News by the 9th of the month preceding the meeting to:
FOG DISPENSER
Debbie Marshall, Editor, PACO Pumps
845 92nd Ave, Oakland, CA 94603
Telephone 510/639-3200. Ext. 232
Fax 510/639-3337
email (hopefully by Oct.)
Photojournalism Editor: Mike Scofield

Refer prospective new members to
Membership Chair:
John Small-----408/866-0723
FAX-----408/866-5899

For address changes contact:
1/800/8ASHRAE

**Not Listed in the Roster properly?
Not Getting Your Fog Dispenser?**

**Call Virginia Gifford
510 / 798-7987**

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 Brennan St., San Francisco, CA 94107

1997-1998 OFFICERS
Dan Reiter.....President
Ernie French.....President Elect
Mark Hydeman.....Secretary
Ben Sun.....Treasurer

Board of Governors
Kent Lim, Joe Olivier, Dennis Thompson

ASHRAE GOLDEN GATE CHAPTER 1997-1998 COMMITTEES AND CHAIRPERSONS

Attendance	Dick Charles	Awards	Barbara Dilts	Auditing	Dennis Thompson
BAEC	Tom Reinarts	By-Laws	Roy Gifford	CRC Action	Ernie French
Database Manager	Virginia Gifford	Education/School	Jim Brugger	Fog Dispenser	Debbie Marshall
Golf	Dave Eisemberg	TEGA		Historian	
Honor Roll	Ellen Pierce	Marble Game	Edgar DeGuzman	Membership/Picnic	John Small
Product Show	N/A this year	PAOE	Dennis Thompson	Program	Ernie French
Publicity	Mike Scofield	Reception	Wasil Popov	Refrigeration	Dave West
Research	Bob Levi	Roster	Tim Provo	Web Page	
Seminar		Tennis	Rich Leao	1998 Meeting	Tom Reinarts

The GOLDEN GATE vs The REDWOOD EMPIRE

ASHRAE Volleyball Tournament and Family Picnic

**Saturday – October 18, 1997
11:00 am to 4:00 pm**

**RAGLE RANCH PARK
Sebastopol, CA**

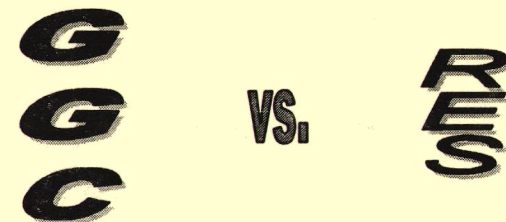
The upstart Section located somewhere north of the Golden Gate has thrown down the gauntlet and challenged its parent Chapter to the "Mother of all Volleyball Matches". The location of the joust is set in beautiful Ragle Ranch Park just north of downtown Sebastopol.

Parking inside the park costs \$2.00 per car, but there is plenty of free street parking within a short walk to the picnic and volleyball area. Those interested in playing tennis should bring their rackets. There are four new tennis courts located next to the two volleyball sand courts.

Maps will be distributed at the October meeting.

The picnic is potluck and The Golden Gate Chapter will provide the chips, soft drinks and BBQ fire.

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Nothing makes a person more productive than the last minute.

ASHRAE Golden Gate Chapter
Program Schedule
1997-1998

Get ready for an Exciting and Educational Year. If you have questions, comments or suggestions, please contact Ernie French at Norman Wright Equipment Company (415) 777-5333.

Month	Subject	Speaker
October	Code changes and Fire/Smoke Dampers	Chris Scharz – Ruskin
November	Computational Flow Dynamics	Dave Wardoclip – AEA Technologies
December	Controls Connectivity: BACNET? Echelon? What are the options and how do they work together?	John Morris - Echelon Mike Newman - Cornell Univ., Chair ASHRAE Bacnet Committee
January	Refrigeration Night	
February	Variable Speed Pumping and Energy Efficient Hydronic Systems	
March	Diversity and Energy Savings in VAV Lab Design	Pete Hmelyer – Phoenix Controls
April	Utility Deregulation	
May	Field Trip	
June	Global Warming and other Environmental Impacts of the HVAC Industry	

ASHRAE Golden Gate Meeting Minutes

June 5, 1997

Meeting was called to order at 7:55 pm by Dennis Thompson

88 Members and guests were present.

The Minutes from the April 1997 meeting were approved as printed in the *Fog Dispenser*.

- A. The formation of the Redwood Empire section was officially recognized by Society. Congratulations and thanks to the individuals who started the Redwood Empire (alias Wine Country) section.
- B. The formation of the student chapter at San Francisco State University was recognized by Society.
- C. **ASHRAE now has a new address: 41 Sutter Street, Suite 1401, San Francisco, CA 94104-4903.**
- D. The chapter elected the following board members and officers for the 1997-98 year:
 - Dan Reiter – President
 - Ernie French – President Elect
 - Mark Hydeman – Secretary
 - Ben Sun – Treasurer
 - Kent Lim – 2nd year board member
 - Joe Olivier – 1st year board member
 - Dennis Thompson assumed the position of past president/board member.
- E. Tom Reinarts will chair the Winter meeting to be held in San Francisco, January 17th through the 21st. The following people are committee chairs:
 - Jim Nemechek – Entertainment
 - John Small – Publicity
 - Frank Mayhew, Mike Scofield – Sessions
 - Tom White – Honorary Chairman
 - Juanita Gilbertson (Tom) – Trips and Tours.

The committee is looking for session volunteers, please contact Tom Reinarts, Frank or Mike if you are interested.
- F. Mike Rubio announced that the Golf Tournament will be held June 20th at Harding Park.
- G. John Small announced that the Fall picnic will be Saturday October 18th. The Redwood section (winos) have challenged the GG chapter to a volleyball game.
- H. The Chapters Regional Conference (CRC) was held in Phoenix in early May. Dan Reiter was the Golden Gate Chapter Delegate, Ernie French was the Alternate. The motion presented by the Golden Gate Chapter to include e-mail addresses in the Society database was passed by the Region and forwarded to Society.

- I. Awards were presented to the following people:
 - Frank Mayhew – Fog Dispenser
 - Joe Olivier – Energy and Technical Affairs
 - John Small – Membership
 - Ellen Pierce – Honor Roll
 - Tim Provo – Roster
 - Dave West – Refrigeration
 - Bob Levi – Product Show
 - Wasil Popov – Stinking Badges & Reception
 - Mike Scofield – Picture Boy
 - Barbara Dilts – Research
- J. The chapter reached and exceeded the Research fundraising Goal of \$25,000 for the first time in years. **Congratulations to Barb Dilts for her outstanding effort and to the generous donations of the numerous individual and corporate sponsors.**
- K. David Hillstrom of InfoLane presented an interesting program on the Internet.
- L. Meeting was adjourned at 9:05 pm.

Respectfully Submitted,
Ernie French

Chapter Website

Coming soon...ASHRAE Golden Gate Chapter goes on-line!

The development of the ASHRAE Golden Gate Chapter website is in progress. In late September or early October we expect to be on line. Point your browsers to <http://www.connet.com/Ggashrae>. Space for the website was graciously donated by Ed McJunkin of ConNet, who also donated space for the San Jose Chapter site. The board has created a new website committee which is chaired by Robert Marcial, a UC Berkeley graduate student and former secretary of the Berkeley ASHRAE student chapter. The board liaison is Mark Hydeman.

The website is proposed to have the following elements: information, email links and pictures of your Board Members and committee chairs, a copy of the chapter by laws, a calendar of upcoming ASHRAE Golden Gate Chapter events and programs, detailed program description, a meeting announcement for the upcoming meeting with an on-line registration form and links to the national chapter and other chapters' web sites.

If you have an interest in working with us on this project or would like to submit comments, contact either Robert Marcial or Mark Hydeman. Robert can be reached at, rmarcial@uclink4.berkeley.edu. Mark can be reached at, mmh0@pge.com.

Board Motions

August Meeting (8/20):

- Provide database chair (Virginia Gifford) direct access to ASHRAE's ftp site and the most current database. *Passed.*
- Disburse excess chapter income for the 96/97 year as follows:
-\$2,500 to the Erik Thor Andressen Memorial Scholarship Fund.
-\$1,800 to the Golden Gate Chapter Scholarship Fund.
-The Treasurer (Ben Sun) was directed to purchase \$3,000 of 5-year treasures for each fund with these donations and the balance in each fund's savings account. *Passed.*
- Split the \$324.68 postage from the last mailing of the Redwood Section's meeting announcement. This is a one time exception to assist the section in getting started. *Passed.*

September Meeting (9/10):

- No motions made.

Employment Opportunities

New Instructor Wanted, NEEDED.....Please!!!

University of California, Berkeley, is looking for a new instructor for the Spring Semester for the Refrigeration Section at the Berkeley Campus. Jim Davis from Johnson Controls is currently conducting the class but must resign after this semester. If you are interested in, or know of someone, please contact Jim at (510) 786-5865.

EMS Project Engineer

Bay Area energy services consulting firm seeks highly qualified project engineer for management, design, specification, analysis and commissioning of building EMS and energy efficiency projects. Min. 3 years of commercial or industrial EMS experience, BSME/EE w/PE preferred, excellent project/client management skills, and working knowledge of PC/network systems. **Send resume to: ESS, 114 Sansome St., Ste 1201, SF, CA 94104.**

Upcoming Programs at the PG&E Energy Center

For more information on these programs or to register call (415) 973-7268 or on-line at <http://www.pge.com/pec/progtoc/97fhvac.html>. Unless otherwise noted below, these seminars are free.

The seminars are located at the PG&E Energy Center @ 851 Howard Street between 4th and 5th streets in San Francisco.

- **Internet Applied:
HVAC Resources in Cyberspace
October 16th, 5:00 pm – 7:00 pm**

This evening seminar demonstrates the resources available on the World Wide Web related to HVAC design including rules and updates from regulatory agencies, case studies, information about on-going standards development, tools for design and forums on design techniques.

- **Shifting Loads for Changing Times:
Gas Cooling & Thermal Energy Storage
October 21st, 10:00 am – 4:30 pm**

This one day seminar explores gas cooling and thermal energy storage technologies, and the new market for these technologies in a deregulated electric industry. Increasingly, load profiles and load prediction are central to rate negotiations as these factors are important in representing true supply costs. Fuel switching with gas cooling and load shifting with thermal energy storage are two practical methods for reducing demand charges and producing a level load profile. These technologies are explored in this seminar by William Saulino, Jr., Director of Technology at the American Gas Cooling Center, and Jim Ellison, president of Ellison Engineering and author of ASHRAE's popular guide, "Successful Cool Storage Projects: From Planning to Operation."

- **Data Collection for Energy Audits
October 29th, 9:00 am to 4:30 pm**

This program is an introduction to energy efficiency evaluations and energy audits in building. Topics include: an overview of the audit process; methods to identify target buildings and systems; utility bill analysis techniques; site survey guidelines; forms for surveys and audits; and procedures. Program participants will also learn monitoring methods using data loggers and hand held instrumentation which are available free of charge from the PG&E Energy Center Tool Lending Library. The instructor is Keith Kempfski of the University of Wisconsin-Madison.

- **PowerDOE
November 4th & 5th (2 day seminar),
10:00 am – 4:30 pm
\$250.00 fee per participant**

This hands on workshop introduces participants to the newly released PowerDOE program for building simulations. This new release of the DOE2 simulation program features a graphical interface, HVAC sizing routines that utilize ASHRAE HOF methodologies, on line context specific help, a completely reworked simulation engine with extensive capabilities to assist central plant evaluation, and user modifiable libraries.

NAME CHANGE

GUTTMAN & MacRITCHIE now
are **GUTTMAN & BLAEVOET.**

This name change recognizes the partnership between Jeffrey Blaevoet, PE and Steven Guttmann, PE. The firm has specialized in highly serviced, complex project types such as health-care facilities, laboratories, aquariums, museums, libraries and multimedia/technology facilities. Guttmann and Blaevoet has unique expertise in the design of commercial buildings emphasizing affordable flexibility, energy efficiency and indoor air quality.

LOCALS WIN NATIONAL AWARDS

Congratulations to three of our local members who received recognition from the National ASHRAE at the annual meeting held this year in Boston, MA. **Fred Bauman and Max Sherman** each received the **Distinguished Service Award** which salutes members of any grade for giving freely of their time and talent on behalf of the Society.

The honor recognizes participation in chapter, regional and Society activities. **Fred** is a research specialist at CAL. He often presents the results of his research at Society meetings and regularly contributes to *ASHRAE Transactions* and *ASHRAE Journal*. **Dr. Sherman** is a staff senior scientist and group leader at LBNL. He presently serves on the Handbook Committee and the committee that is revising ANSI/ASHRAE Standard 62-1989, *Ventilation for Acceptable Indoor Air Quality*.

Steven Taylor received the **Journal Paper Award** for his article, *Series Fan-Powered Boxes: Their Impact on Indoor Air Quality and Comfort*, published in the July 1996 issue. It was judged to be the best paper or article

published in *ASHRAE Journal* in 1996. **Steve** is the principal of Taylor engineering and presently chairs the committee that is revising ASHRAE indoor air quality standard.



Cakebread Winery - Napa

REDWOOD SECTION IS ON IT'S WAY!

The ASHRAE Redwood Empire Section held its first meeting of the fiscal year at the Cakebread Winery in Napa. Paul Larkin of Larkin & Associates, Dan Rob Main and Mike Davidson led tours introducing the equipment and design of the barrel room and mechanical yard. While it was pleasantly cool in the barrel room, the mechanical yard tended to be a tad warm. Dinner was held at Pometta's Deli down the road where a few pleasant rounds of horseshoes were enjoyed. Next meeting will be in December.

Erik Thor Andressen Tennis Tournament Results

Held in the mid hot summer month of July (has any month been hot yet?). There were six entries and the winner was Dan Noone of Air Treatment Corporation. Contributions to the scholarship fund totalled \$270. Thank you to all participants!

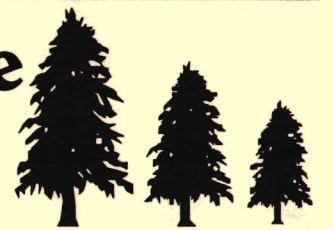
Spring Golf Tournament Results:

Held June 20th at Harding Park Golf Course in San Francisco, there were 144 players for 36 foursomes, this is the full capacity of the golf course! Almost \$1,200.00 in prizes were awarded and over \$5,800.00 was raised for ASHRAE. This was a great turn out! Winners of the tournament, a tie at 8 under par, were DMG and Norman Wright - Santa Clara. **Congratulations to the winners, players and all of ASHRAE.**



Redwood Empire ASHRAE

Section of Golden Gate ASHRAE



DINNER MEETING

Wednesday - December 3, 1997

Social Hour: 5:30 p.m.

Dinner: 6:30 p.m.

Location: Adobe Creek Golf Club in Petaluma, CA (See map on next page)

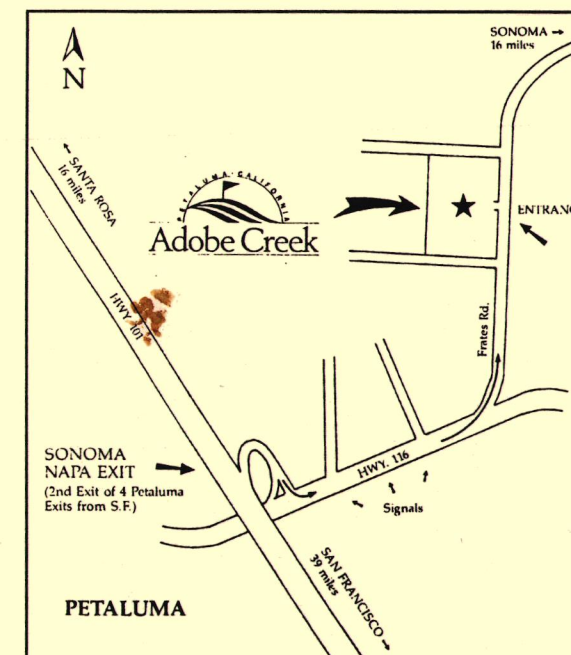
Menu: Grilled Chicken and Penne Pasta

Cost: \$25.00

Reservations: Required. 100 maximum.

Make reservations by **Wednesday, November 26, 1997** Contact Jim Horn.
Phone: (707) 546-1332
FAX: (707) 546-5733
E-mail: jhorn@mmhengineers.com

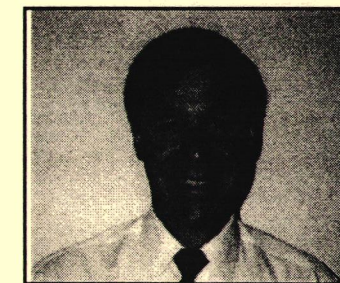
Wine will be provided at the December meeting by **Peterson Mechanical** thanks to the generosity of Todd Williams.



PROGRAM

Speaker: Mr. Steven Taylor, P.E., Taylor Engineering

TOPIC: "Ventilation for Acceptable Indoor Air Quality"



Our speaker Mr. Steven T. Taylor, PE has nineteen years of commercial and industrial HVAC system design experience, twelve of which were with design/build contractors, until starting his own consulting company in 1995. He specializes in energy efficient HVAC design. Mr. Taylor graduated from Stanford University in 1977 with a BS in Physics and an MS in Mechanical Engineering. He is very active with ASHRAE. Since 1983, he has been a member of the committee responsible for ASHRAE Standard 90.1 "Energy Conservation in New Non-residential Buildings", a standard that is the basis of the Title 24 Energy Standards. Since 1992, he has been a member of the committee developing ASHRAE Standard 62 "Ventilation for Acceptable Indoor Air Quality" which has also been incorporated into most state codes. He is currently chair of that committee.

His talk will focus on both the fundamentals of indoor air quality (IAQ) and some of the latest research. His talk will also address codes which directly relate to indoor air quality.

*Thought for the Day
All generalizations are false*

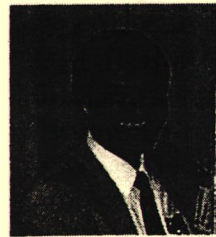
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PRESIDENT'S MESSAGE



Our first meeting was a big success with almost 70 members and guests touring the Cakebread Cellars Winery and joining afterwards for dinner and horseshoes at

Pometta's Deli. Many thanks to Paul Larkin, Rob Main, Mike Davidson and Mike Miller for their very successful wine country "crush".

A small, but enthusiastic and athletic, group showed up for the ASHRAE Family Picnic and Volleyball game. The Bar-B-Que was terrific and the games were spirited. Since all the volleyball players held dual citizenship, it was difficult to determine whether the Golden Gate Chapter, or the Redwood Empire Section, won the tournament!

On the evening of Wednesday, December 3rd, our Section will hear from the Chairman of ASHRAE Standard 62R on Ventilation for Acceptable Indoor Air Quality. Steve Taylor, P.E., President of Taylor Engineering, is not only Chairman of this key Society Committee, but he is also one of the best speakers on the topic of Indoor Air Quality (IAQ) I have ever had the pleasure of hearing. He has received the 1997 ASHRAE Journal Best Paper Award for his article "Series Fan-Powered Boxes: Their Impact on Indoor Air Quality and Comfort" from the July

1996 issue. Those who attend the December meeting will certainly come away with a far better understanding of the direction our industry is taking in the area of IAQ standards.

Respectfully submitted,
Mike Scofield, P.E.

Joke of the Week

A three-legged dog walks into a saloon in the Old West. He sidles up to the bar and announces: "I'm lookin' for the man who shot my paw."

FUTURE MEETINGS AND TOPICS

March 4, 1998 -- Dan Int-Hout, Manager of Research for Titus will discuss new ASHRAE requirements for air distribution and IAQ at Jonesy's Famous Steak House in Napa, CA

June 3, 1998 -- A panel discussion featuring a Design Build Contractor, Consultant Engineer, Attorney and an Architect on the topic "Design Build vs. Plan and Specification Construction: Which Gives the "Best Bang for the Buck"? at Adobe Creek Golf Club in Petaluma, CA

ARTIST STILL WANTED

To design a new banner for "The Redwood Empire ASHRAE Grapevine" and get a free dinner. Submit your entries to Frank Mayhew, Editor by ASAP.

DON'T MISS IT ASHRAE 1998 WINTER MEETING IN SAN FRANCISCO! January 17-21, 1998

The ASHRAE Winter Meeting will be held in San Francisco at the San Francisco Marriott Hotel. The program features 128 Technical Sessions and over 450 presentations.

The 1998 International Air-Conditioning, Heating, Refrigerating Exposition will be held in conjunction with the ASHRAE Meeting at Moscone Center, January 19-21.

The full technical program will be published in ASHRAE Insights and is available on the web at www.ashrae.org. Save money by registering before December 5 (Members \$215, non-members \$280). Registration at the door is Members \$280, non-members \$365

GET MORE FOR YOUR MEMBERSHIP
in the Redwood Empire
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Join ASHRAE Society. Get the ASHRAE Handbook, ASHRAE Journal and reduced admissions to the ASHRAE Society Meetings.

On the Subject of Air Quality
Don't miss the article in the October, 1997 HPAC by our President, Mike Scofield, titled "ASHRAE Standard 62R: A Simple Method of Compliance". The article describes using two-stage evaporative cooling design with a heat-pipe economizer for maintaining ventilation rates and reducing cooling energy in dry Western climates.

Speaking of Mike
Mike Scofield, Conservation Mechanical Systems, provided the wine that graced the tables for our September meeting.

Redwood Empire Section Beats Golden Gate Chapter
At the first annual joint picnic with the Golden Gate Chapter at Ragle Ranch, the

Redwood Empire Section soundly defeated the Golden Gate Chapter in volley ball.



Dan Reiter, Rick Nagy John Small and Leo Copper duke it out for the honor and glory.



John Small (right front) did the cooking duty and then sat down to enjoy the repast.

U.C. BERKELEY EXTENSION Temperature Controls for HVAC February 11, 1998 X473 (2 units, 30 hours)

This course covers the principles involved in the selection and design of temperature controls for HVAC systems. Topics include controls theory and fundamentals; pneumatic, electric, electronic and computer based hardware; control application for zones, air handlers and chilled water and hot water systems. Emphasis will be on energy efficient controls and integration of controls using Direct Digital Control systems.

Lecturer: **Frank W. Mayhew, EC/TC Consulting**

- 10 evenings, February 11 to April 15: Wednesday, 6:30-9:30 p.m.
- **San Francisco:** Room 619, City College Downtown, 800 Mission @ 4th street.
- **\$335 Enrollment is limited**

Call UC Berkeley Extension (510) 642-4151 to enroll or obtain course information.

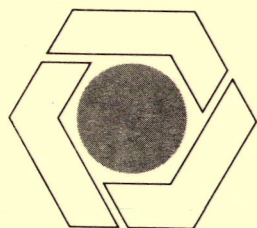


Redwood Empire, ASHRAE Officers

			Phone	FAX
President	Mike Scofield	Conservation Mechanical Systems	(707) 829-2080	829-3142
President-Elect	Phil Russo	H&C Metal Products	(707) 546-3042	546-6012
Vice President	Leo Copper, Jr.	Climate Mechanical	(707) 575-5661	544-2413
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	Todd Williams	Peterson Mechanical	(707) 938-8481	938-1437
	Rich Mainenti	Peterson Mechanical	(707) 938-8481	938-1437
Membership Programs	Phil Russo	H&C Metal Products	(707) 546-3042	546-6012
Newsletter	Leo Copper, Jr.	Climate Mechanical	(707) 575-5661	544-2413
Nominating	Frank Mayhew	EC/TC Consulting	(707) 824-9381	824-9382
Reception	Tony Costa	Costa Engineers	(707) 252-9177	252-6473
	Jim Horn	Murakami Myers & Horn Engineers	(707) 546-1332	546-5733



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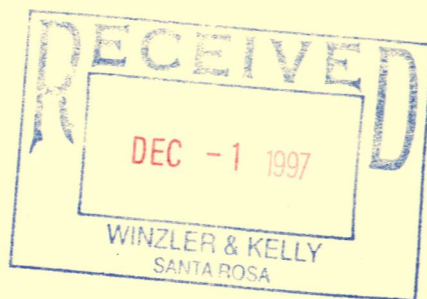


Golden Gate Chapter
ASHRAE
370 Brannan Street
San Francisco, CA 94107

FIRST CLASS MAIL



DANIEL B REITER
WINZLER & KELLEY
PO BOX 6798
SANTA ROSA, CA 95406-0798



Rich Gneid
& Frank on

FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVII - NUMBER 3

THURSDAY, - DECEMBER 4, 1997

DECEMBER, 1997

!!!STUDENT NIGHT!!!

Location: Gabbiano's (upstairs)
1 Ferry Plaza, San Francisco, CA

Social Hour: 5:30 pm downstairs

Speaker: John Morris, Echelon Corp.
"Open Protocols for Building
Automation Systems"

Dinner: 6:30 pm

Cost: \$ 30.00

To Reserve: Please e-mail your dinner
reservation to Kent Lim by Monday, December 1st.
If e-mail's not available a fax form is included for
your convenience.

e-mail: ashrae@essinc.com
Phone: 415/822-1232
Fax: 415/822-6437

Gabbiano's is located near Pier 2, behind the Ferry
Building (Clock Tower), one block from the
Embarcadero BART station.

IT'S NEW, IT'S GREAT, USE IT!!!!

<http://www.connet.com:8080/GGashrae/>

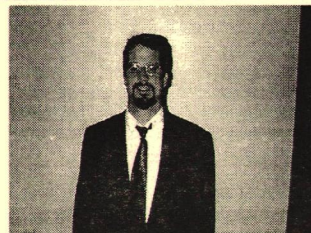


December Program
"Open Protocol Control Systems"
Speaker: Mr. John Morris
Echelon Corporation

Mr. Morris will discuss the current state of the art in
building control systems with an emphasis on the
impact of the Lonmark and Bacnet standards.
Topics will also include cost saving models for
network controls systems and actual jobsite
examples.

John Morris entered the industry approximately 15 years
ago with his family contracting firm in Minneapolis. In
1992 he relocated to the Los Angeles area, where as an
employee for Sasco Electric, he pioneered a number of
high tech animation and audio/visual network products
for the film industry before joining Echelon in 1994.

Echelon is a privately funded control network system
supplier located in Palo Alto, California. Investors
include Motorola, Toshiba, Detroit Edison, George
Soros and Mike Markala of Apple Computer.



November was a busy month for everyone. Mike and Frank now have the volunteers they need for monitors of the Society Winter Meeting. However John Small still needs volunteers for the Information Table and Robin James needs help for the Spouse Hospitality Room. Remember you receive a free pass as a thank you for your efforts. A BIG THANK YOU to everyone who has volunteered. Again, don't miss this opportunity to attend a Winter meeting so close to home!

For those of you who have not paid your dues yet, now is the time to come clean. This is the last Fog Dispenser you will receive this year without paying up. Secondly, you will not be in the roster either unless you are current.

I am sorry to announce that Wasil Popov has taken a position in China. We will miss him! For those of you that don't know, Wasil has diligently served as our Reception Committee Chair. For a few years now he has dragged the name badges from Gabbiano's to the PEC and back again, set them up prior to each meeting and ordered new badges as required. A HUGE THANK YOU Wasil! Good luck in China. Since we need those "stinking badges", I am looking for someone to step forward and take over the task. Please let me know if you are interested.

This next month's meeting is Student Night so please help out and donate for a student or two. Students please come to this meeting! As usual I look forward to seeing everyone there!

Respectfully submitted, Dan Reiter, President

Fog Dispenser Deadlines

The ninth of the month preceding the meeting. All the news that fits gets printed.

Mail, fax, phone or email News by the 9th of the month preceding the meeting to:

FOG DISPENSER

Debbie Marshall, Editor, PACO Pumps 845 92nd Ave, Oakland, CA 94603 Telephone 510/639-3200. Ext. 232 Fax 510/639-3337 email (Waiting for PB) Photojournalism Editor: Mike Scofield

Refer prospective new members to Membership Chair:

John Small-----408/866-0723 Fax-----408/866-5899

For address changes contact: 1/800/5ASHRAE

GGC database is based on the National Database. You need to contact National in order to change local information. This may take a couple of months.

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 Brennan St. San Francisco, CA 94107

1997-1998 OFFICERS

Dan Reiter.....President Ernie French.....President-Elect Mark Hydeman.....Secretary Ben Sun.....Treasurer Board of Governors Kent Lim, Joe Olivier, Dennis Thompson

ASHRAE GOLDEN GATE CHAPTER 1997-1998 COMMITTEES AND CHAIRPERSONS

Table with 6 columns: Committee Name, Chairperson, Committee Name, Chairperson, Committee Name, Chairperson. Rows include Attendance (Dick Charles), BAEC (Tom Reinarts), Database (Ginny Gifford), Golf (Dave Eisenberg), Honor Roll (Ellen Pierce), Product Show (N/A), Publicity (Mike Scofield), Research Promotion (Bob Levi), Seminar (N/A), Awards (Barbara Dilts), By-Laws (Roy Gifford), Education/School (Jim Brugger), TEGA (Edgar DeGuzman), Marble Game (Dennis Thompson), PAOE (Wasil Popov), Reception (Tim Provo), Roster (Rich Leao), Tennis (Tom Reinarts), Auditing (Dennis Thompson), CRC Action (Ernie French), Fog Dispenser (Debbie Marshall), Historian (John Small), Membership/Picnic (Ernie French), Program (Dave West), Refrigeration (Robert Marcial), Web Page (Tom Reinarts), 1998 Meeting (Tom Reinarts).

ASHRAE GOLDEN GATE CHAPTER DINNER RESERVATION FAX

For THURSDAY, December 4, 1997

Please send Fax by noon on Monday, December 1, 1997

FAX TO: Kent Lim, Kent Lim & Company, Inc.

FAX: (415) 822-6437

Phone: (415) 822-1232

Please call if you have any last minute changes in plans.

Please cancel your reservation if you cannot attend the meeting.

e-mail: ashrae@essinc.com Preferred method of communication!

FROM: _____

COMPANY: _____ Phone: _____

Please make _____ reservation(s) for the following people (fill in names below):

Blank lines for entering reservation details.

LOCATION: Gabbiano's (upstairs) 1 Ferry Plaza, San Francisco, CA (415) 391-8403

Gabbiano's is located near Pier 2, behind the Ferry Building (Clock Tower), one block from the Embarcadero BART station. Limited parking is available along the Embarcadero. Valet parking is also available.

Student Sponsorship

This meeting's theme is "Sponsor a Student"!!

Please show your support and sponsor a student or two (or more) by signing up below. Your enthusiastic support and participation will be greatly appreciated! You'll be recognized for your effort!

I/We think that students should join us therefore, I/We will be sponsoring _____ student(s) at \$30.00 each for this meeting.

I/We would like to sponsor _____ student(s) to enable he/she/them to attend ASHRAE meetings at \$30.00 each, up to _____ students per meeting, and/or a total of _____ students per year.

Signature: _____

Company: _____ Phone: _____

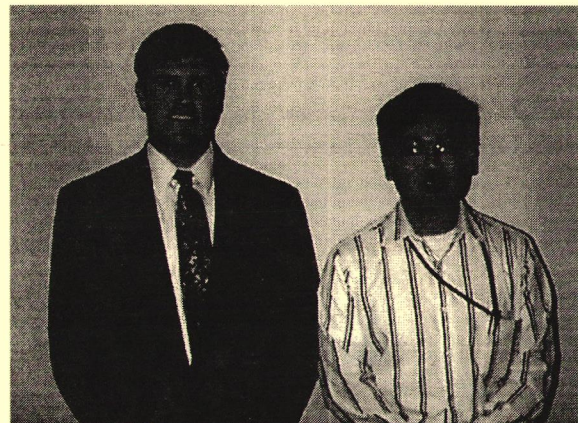
EMPLOYMENT OPPORTUNITIES

ENGINEER HVAC

A small San Francisco firm that no one enjoys working with or for, is looking for two unenthusiastic, pessimistic, introverted candidates to be overworked and underpaid. If you have the proper credentials and at least two years experience with a similar firm, please contact *Mechanical Design Studio, Inc.* at 415/284-0114 or fax 415/284-0118.

New Members:

Congratulations to two new members of the Golden Gate Chapter of ASHRAE:

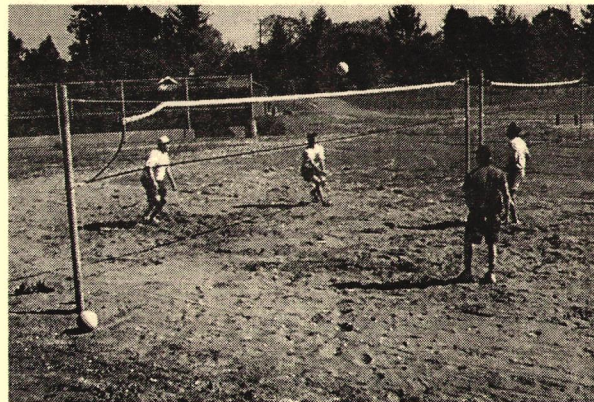


James Elliott AMS David Sasai, PE National Tuberculosis Center

~~~~~

*May Your Holiday Season be Merry, Joyful and Exciting*

**1997 Annual Picnic**



John Small, Rich Nagy, Mike Scofield, Leo Copper, Jr at the annual GGC vs RWS volleyball match. Who won?



*Were you there? Did the camera catch the real you????*



John Small, **Barbecuer Extraordinaire** (are these real words?), his picnic organizational skills are incomparable. Thank you John for your great achievements on this picnic and volleyball game.



**GGC November 6,'97 Meeting Minutes**

The meeting was called to order at 7:40 pm by Dan Reiter. 62 members and guests were present. The minutes from the October 1997 meeting were approved as printed in the *Fog Dispenser*.

There were several announcements related to volunteers needed for the ASHRAE 1998 Winter Meeting in San Francisco:

- **Frank Mayhew** announced that he and **Mike Scofield** were overwhelmed with 160 volunteers, a full 50% more than their target! He announced that they still needed volunteers for two ASHRAE short courses: not missing a beat, **Robert Hogue** volunteered for the 2-day marathon course on commissioning and **Charlie Nadig** volunteered for the course on utility deregulation. Frank and Mike will be faxing confirmations to all of the volunteers. Volunteers must sign the forms and return them to Mike to make things official.
- **Robin James** announced that she needs 7 volunteers to people the hospitality suite. She needs volunteers for morning and afternoon shifts on Saturday, Sunday and Tuesday. For Wednesday she has a slot for the morning only. Each shift is between 3 and 4½ hours. For information call Robin at (707) 745-5998.
- **John Small** needs volunteers for the information and publicity table at the SF Marriot Sunday through Wednesday. According to John's sources, "you can't have too many volunteers" at this station. Job description includes assisting conference attendees in enjoying the sights, sounds, smells and tastes of our fair (but foggy) city. Volunteers are needed for 4 hour shifts. For more information call John at (408) 866-0723.

**Mark Hydeman** announced the Board's decision to fax the front page of the *Fog Dispenser* (the meeting announcement) to the entire area assigned chapter members (current dues paid or not) for all chapter meetings. If you did not receive the November issue by fax, your fax number is not current in the society database. He also announced that the *Fog Dispenser* will be available on-line from the Chapter Website, <<http://www.connet.com:8080/GGashrae/>> starting next month.

**Mark Hydeman** announced that **Ginny Gifford** prints the mailing labels for the *Fog Dispenser* and hand carries them to

Jose at Duplicating Associates. Through December all chapter area assigned members are included (regardless of the status of their dues). Last month's problems with the *Fog Dispenser* were not due to members being excluded for unpaid dues. **Dan Reiter** asked for a show of hands of members who either did not receive their November *Fog Dispenser* or received them late. Not a single hand was raised. Dan and Mark praised the hard work and stalwart spirits of **Ginny Gifford**, our database chair, and **Debbie Marshall**, our *Fog Dispenser* editor. They urged the chapter members to show their appreciation (cards, letters, vibes, candy, cash....).

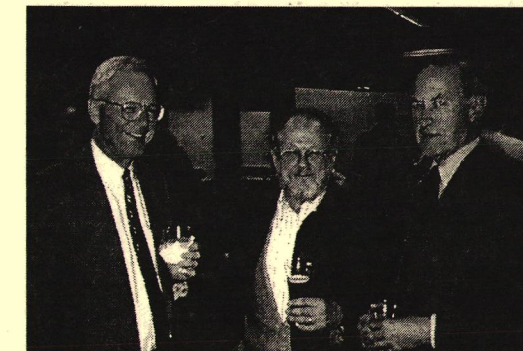
**Tim Provo** testified to complaining about the meal at last month's meeting. In contrast, he noted this month's meal was excellent. Gastronomic interests aside, he noted that there is still plenty of space on the upcoming Roster for non-ads. To place a non-ad call Tim at (415)758-2835.

**Dan Reiter** announced that the roster will be published in January. To guarantee a place in this venerable publication, members need to get their dues paid and address corrections into Society ASAP (if not sooner). **You have been warned!!**

**Bob Levi**, research promotion chair, promoted research. He urged all members to make a tax deductible "investment in our industry". He reminded members that 100% of each donation goes directly to research, ASHRAE overhead costs come out of dues and other funding sources. Bob announced all honor roll donors (over \$100/person or \$150/company). He also announced that the entire board (and himself as chair) contributed at the honor roll level to earn the full-circle award. Two companies got special recognition for \$1,000 donations: **Kent Lim Company** and **Chevron** (due to the diligent work of **Gary Margadant**). Bob assured members that its not too late to contribute! To make your pledge, call Bob at (510) 635-1237.

**Robert Hogue** won the marble game. Although volunteering for the Winter Meeting doesn't guarantee a win, it certainly won't hurt your chances.....

*Respectfully submitted,  
Mark Hydeman, Secretary*



Bob Swezey, Carl Guttman, Chuck McLaughlin



# ASHRAE GOLDEN GATE CHAPTER DINNER RESERVATION FAX

*For THURSDAY, November 6, 1997*

Please send Fax by noon on Monday, November 3, 1997

**FAX TO:** Kent Lim, Kent Lim & Company, Inc.  
**FAX:** (415) 822-6437 Please call if you have any last minute changes in plans.  
**Phone:** (415) 822-1232 *Please cancel your reservation if you cannot attend the meeting.*  
**e-mail:** ashrae@essinc.com *Preferred method of communication!*

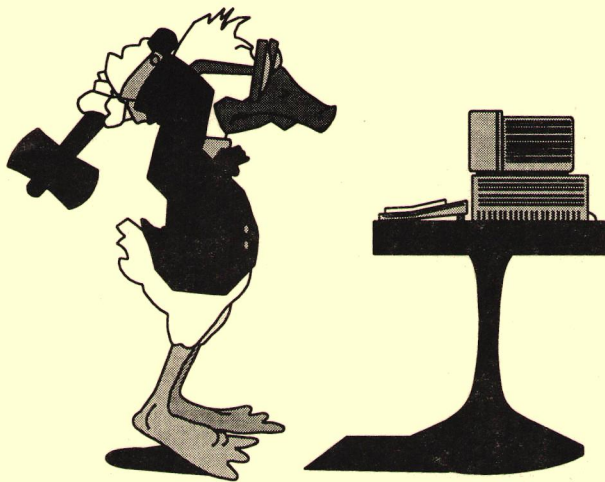
FROM: \_\_\_\_\_

COMPANY: \_\_\_\_\_ Phone: \_\_\_\_\_

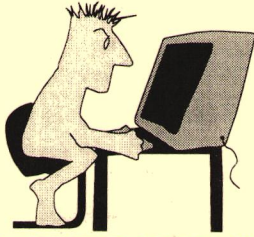
Please make \_\_\_\_\_ reservation(s) for the following people (fill in names below):

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

**LOCATION:** PG&E Energy Center, 851 Howard Street (between 4<sup>th</sup> and 5<sup>th</sup>), San Francisco. Parking is across the street.



*E-mail is the preferred method of communication, but don't let the nuances and intricacies drive you to this!*



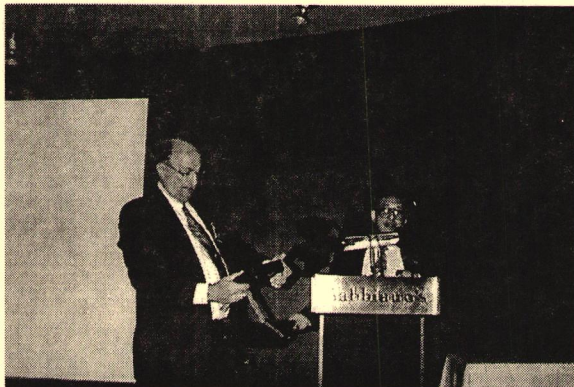
## CHAPTER WEBSITE

### ASHRAE Golden Gate Chapter goes on-line!

The ASHRAE Golden Gate Chapter website is now live. Point your browsers to: <http://www.connet.com/GGashrae>. **NOTE: YOU MUST GET THE CASE CORRECT!** Space for the website was graciously donated by Ed McJunkin of ConNet who also donated space for the San Jose Chapter site. The board has created a new website committee which is chaired by Robert Marcial, a UC Berkeley graduate student and former secretary of the Berkeley ASHRAE student chapter. The board liaison is Mark Hydeman.

The website has the following elements: information, email links and pictures of your Board Members and committee chairs, a copy of the chapter bylaws, a calendar of upcoming ASHRAE Golden Gate Chapter events and programs, detailed program description, a meeting announcement for the upcoming meeting with an on-line registration form and links to the national chapter and other local chapters' websites.

If you have an interest in working with us on this project or would like to submit comments, contact either Robert Marcial or Mark Hydeman. Robert can be reached at, [rmarcial@uclink4.berkeley.edu](mailto:rmarcial@uclink4.berkeley.edu). Mark can be reached at [mmh0@pge.com](mailto:mmh0@pge.com). (Mark's address has a zero not an "O".)



Frank Mayhew wins a prize in the Marble Game.  
(This looks awfully familiar, does Frank have an "in" with Edgar?)

## EMPLOYMENT OPPORTUNITIES

### Mechanical Design Engineers

Carlson is a 50 year old national Design/Build firm with offices in principal cities. We are a recognized leader in data centers, critical operating facilities, retail banking, roll-out programs and administration facilities for the financial services industry and have career opportunities for seasoned professionals. We are experiencing dramatic growth in our Western operations and will be expanding our other regional locations as well. We are seeking junior to intermediate level design engineers to develop technical solutions for HVAC systems, environmental controls, fire protection and plumbing systems. Req'd. BS Mech. Engineering, 2-4 years work exp. preferred. Will consider less experience if educ. was focused on building systems. ACAD R-13 desirable. 35K - 45K, DOE.

**Send resume to:** Carlson Design/Construct Corp., Attn: Design Manager, 120 Montgomery St., Ste 900, San Francisco, CA 94104, FAX: 415/677-0145.

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**SKM Consulting Engineers** is a progressive consulting engineering firm offering electrical design services for commercial and institutional projects. We wish to set up a core mechanical group. We are looking for a HVAC and plumbing engineer to lead design of projects in-house, and supervise and coordinate with other mechanical sub consultants. Professional registration is required. Friendly work atmosphere. Good benefits. Salary commensurate with experience.

### Apply Attn: Business Administrator

e-mail: [SKMCE@AOL.com](mailto:SKMCE@AOL.com) or [SKMCE@PACBEL.NET](mailto:SKMCE@PACBEL.NET)  
or fax to 510/451-2297

Mailing address: 1720 Broadway, Suite 350, Oakland, CA, 94612

## ASHRAE RESEARCH

The 1997-1998 ASHRAE Research drive is underway and November is Research Month.

The Golden Gate Chapter Board has lead the way with their Individual Honor Roll contributions. Thank you for their participation:

Dan Reiter  
Ernie French  
Mark Hydeman  
Ben Sun

Kent Lim  
Dennis Thompson  
Joe Olivier  
Robert Levi

**GOLDEN GATE CHAPTER  
MEETING MINUTES  
OCTOBER 2, 1997**

Meeting was called to order at 7:35 pm by Dan Reiter. Eighty eight members and guests were present. The minutes from the June 1997 meeting were approved as printed in the Fog Dispenser.



1. John Small announced the upcoming picnic at Ragel Ranch Park in Sebastopol, Saturday, October 18, 11:00 am to 4:00 pm. John encouraged all members to attend and participate, or witness the humiliation of the Redwood Empire Section, at the "Mother of all Volleyball Matches". RES vs. GGC challenge. Needless to note, discussion ensued.
2. John also encouraged all members to encourage their friends and co-workers to join the Golden Gate Chapter. He noted that "word of mouth" continues to be our most effective means for developing membership. Although, not explicitly mentioned by John, potential members with professional volleyball backgrounds should be recruited.
3. Dan Reiter announced the upcoming 1998 ASHRAE Winter Meeting in San Francisco. The Board of Governors decided to cancel both the chapter product show and seminar for this year as the winter meeting will feature both the annual trade show and many seminars and technical sessions. Discussion was encouraged with the caveat that the commenting on the cancellation of the seminar may be interpreted as volunteering to chair the Seminar committee.
4. Frank Mayhew asked for volunteers to monitor sessions at the Winter Meeting. The host committee needs monitors for 197 technical sessions, symposiums and seminars. Monitors will be admitted free to both the meeting and trade show (a \$200+ value for just a few hours of time!). Volunteers should contact Frank at (707) 824-9381.
5. Dick Charles encouraged all members to take advantage of this wonderful and rare opportunity to be part of an ASHRAE meeting.
6. Mark Hydeman announced that the chapter website is now live thanks to the hard work of our new website committee chair, Robert Marcial. Members can now find out details of chapter meetings and register for the meetings on-line! The chapter website is at <http://www.connet.com/GGashrae>. Note that this URL is case sensitive.

7. Mark also announced upcoming programs at the PG&E Pacific Energy Center and encouraged chapter members to attend.
8. Mark opened a discussion on the electronic database by asking members to indicate how many had not received their Fog Dispenser. Approximately 10 people raised their hands. Mark explained that problems in the database came from one of two sources: 1) Members who are members of ASHRAE national AND the Golden Gate Chapter is their primary chapter affiliation, need to contact ASHRAE at 1-800-5ASHRAE to correct their information; 2) Members who are either members of the chapter only or whom are dual-chapter members with the Golden Gate Chapter as their second affiliation need to contact John Small (408) 866-0723 to correct their information. Printouts of the current roster were located on a table in the meeting space and members were encouraged to check their information.
9. It was noted that the Fog Dispenser was printed late due to a delayed board meeting and the change of Fog Dispenser chairs. After some discussion on possible solutions Mark took a second straw poll to indicate the number of members that would prefer to get the Fog Dispenser by either FAX or E-Mail. About 2/3 of the assembled members indicated interest. Mark and Dan promised to bring this issue up at the October 8<sup>th</sup> Board Meeting.

**Respectfully submitted,  
Mark Hydeman - Secretary**

**BOARD MOTIONS  
October Meeting, 1997**

The Chapter taxes were prepared by a professional consultant for the first time in years. The board moved to approve the taxes as submitted.

**Passed: 6 For, 0 Against, 0 Abstained**

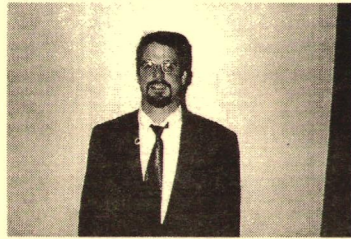
Kent Lim & Company were on the October Honor Roll, however due to circumstances beyond his control, Kent Lim never received his Fog Dispenser. In addition, Kent pledged an additional \$1,000 donation to ASHRAE Research at the board meeting. The board moved to have Kent Lim's Honor Roll announcement carried another month.

**Passed: 6 For, 0 Against, 0 Abstained**

To alleviate future problems with late or no receipt of Fog Dispensers, the board moved to have either Mark Hydeman or the Fog Dispenser Editor, Debbie Marshall, fax the front page of the Fog Dispenser (with the meeting announcement) to the entire chapter database (including those members whose dues are not indicated as paid). This will stay in effect indefinitely until the board rules otherwise.

**Passed: 6 For, 0 Against, 0 Abstained**

**PRESIDENT'S MESSAGE**



I would like to thank everyone for a successful October meeting. Teamwork works! And that is what is required with the 1998 Winter Society Meeting rapidly approaching. The memberships' participation is necessary for a success. As the host chapter, we must provide all of the monitors for the meetings. Frank Mayhew and Mike Scofield are heading up this effort. They need nearly 100 volunteers. Not only will you be contributing to the effort, you will be provided with a free pass and exposure to how ASHRAE Society operates. **Please sign up, you will be glad you did.**

I am aware that some members had problems receiving the Fog Dispenser. We now exclusively use the Society data base of dues paying members to produce our roster and mailing list. The only exceptions are the members who have their primary membership with another chapter and pay dues directly to the Chapter.

To update your address, phone, etc., you must notify Society of the change. This does take a few months; so don't wait! We are trying to push Society to update faster but we do not expect change soon. To keep everyone notified of meetings we will fax all members in our chapter area the first page of this issue.

Another source of information on meetings can be obtained through the new Golden Gate Chapter Web page, <http://www.connet.com/GGashrae>. Thanks to Robert Marcial for putting this new media source together.

Some notes on this month's upcoming meeting. This will be our first Research promotion night. We expect to have the first of many contributors step up to the plate. Without ASHRAE Research our industry would not be where it is today. Remember this month's meeting is at the PG&E Energy Center. I look forward to seeing you there.

**Respectfully Submitted,  
Dan Reiter - President**

**Fog Dispenser Deadlines**  
The ninth of the month preceding the meeting. All the news that fits gets printed.

Mail, fax, phone or email News by the 9th of the month preceding the meeting to:  
**FOG DISPENSER**  
Debbie Marshall, Editor, PACO Pumps  
845 92nd Ave, Oakland, CA 94603  
Telephone 510/639-3200. Ext. 232  
Fax 510/639-3337  
email (hopefully by end of Oct.)  
Photojournalism Editor: Mike Scofield

Refer prospective new members to  
**Membership Chair:**  
John Small-----408/866-0723  
FAX-----408/866-5899

**For address changes contact:**  
**1/800/5ASHRAE**

**Not listed in the Roster properly?**

**Call Ginny Gifford**  
**510/798-7987**

Published monthly, October through June, by the **Golden Gate Chapter Of the American Society of Heating, Refrigeration and Air-Conditioning Engineers**, c/o Duplicating Associates, 370 Brennan St. San Francisco, CA 94107

**1997-1998 OFFICERS**  
Dan Reiter.....President  
Ernie French.....President-Elect  
Mark Hydeman.....Secretary  
Ben Sun.....Treasurer

**Board of Governors**  
Kent Lim, Joe Olivier, Dennis Thompson

**ASHRAE GOLDEN GATE CHAPTER 1997-1998 COMMITTEES AND CHAIRPERSONS**

|              |                |                  |                 |                   |                 |
|--------------|----------------|------------------|-----------------|-------------------|-----------------|
| Attendance   | Dick Charles   | Awards           | Barbara Dilts   | Auditing          | Dennis Thompson |
| BAEC         | Tom Reinarts   | By-Laws          | Roy Gifford     | CRC Action        | Ernie French    |
| Database     | Ginny Gifford  | Education/School | Jim Brugger     | Fog Dispenser     | Debbie Marshall |
| Golf         | Dave Eisenberg | TEGA             |                 | Historian         | (open)          |
| Honor Roll   | Bob Levi       | Marble Game      | Edgar DeGuzman  | Membership/Picnic | John Small      |
| Product Show | N/A this year  | PAOE             | Dennis Thompson | Program           | Ernie French    |
| Publicity    | Mike Scofield  | Reception        | Wasil Popov     | Refrigeration     | Dave West       |
| Research     | Bob Levi       | Roster           | Tim Provo       | Web Page          | Robert Marcial  |
| Seminar      | N/A            | Tennis           | Rich Leao       | 1998 Meeting      | Tom Reinarts    |

*(ASHRAE Research cont'd)*

Special thanks to the following Corporate Honor Roll participants for their significant contributions:

- Chevron Corporation
- Kent M. Lim & Company, Inc.

*Please make your check payable to ASHRAE Research and mail to:*

Robert Levi  
Carrier Corporation  
PO Box 23130  
Oakland, CA 94623  
510/635-1237

**UPCOMING PROGRAMS  
PG&E ENERGY CENTER**

For more information on these programs or to register call (415) 973-7268 or on-line at <http://www.pge.com/pec/progtoc/97fhvac.html>. Unless otherwise noted below these programs are at no cost. The seminars are located at the PG&E Energy Center @ 851 Howard Street between 4<sup>th</sup> and 5<sup>th</sup> streets in San Francisco.

**PowerDOE**  
**November 4&5 (2 day seminar)**  
**10:00 am - 4:30 pm**  
**\$250.00 fee per participant**

This hands-on workshop introduces participants to the newly-release PowerDOE program for building simulations. This new release of the DOE2 simulation program features a graphical interface, HVAC sizing routines that utilize ASHRAE HOF methodologies, on-line context specific help, a completely reworked simulation engine with extensive capabilities to assist central plant evaluation, and user-modifiable libraries.

**BACNet™ Revisited**  
**December 3**  
**10:00 am - 4:30 pm**  
**No charge.**

This seminar will present BACNet™ in its first large scale field implementation, the Phillip Burton Federal Building at 450 Golden Gate in San Francisco. Presentations will be made by H. Mike Newman (chair of the BACNet™ committee), Clair Jenkins (president of Alerton) and others. The seminar includes a live demonstration of the operating BACNet™ system at the Phillip Burton Federal Building.

**SHIFTING LOADS FOR CHANGING TIMES: GAS COOLING AND THERMAL ENERGY STORAGE**

**Tuesday, October 21, 1997**  
**10:00 am - 4:30 pm**  
**No charge**

**Register in advance by calling (415) 973-7268, fax (415) 896-1290 or on-line at [www.pge.com.pec](http://www.pge.com.pec).**

This one day seminar explores gas cooling and thermal energy storage (TES) technologies and their new role in a deregulated market. In the morning, James S. Elleson, president of Elleson Engineering, will present TES applications and discuss the keys to successful projects. In the afternoon, William Saulino, Director of Technology, American Gas Cooling Center, will talk about gas cooling applications.

**ASHRAE Golden Gate Chapter Program Schedule 1997-1998**

This schedule will be repeated in each Fog Dispenser (room permitting). If you have questions, comments or suggestions, please contact Ernie French at Norman Wright Equipment Company (415) 777-5333.

| Month    | Subject                                                                                     | Speaker                                                                             | Location           |
|----------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------|
| November | Computational Flow Dynamics                                                                 | Dave Wardoclip - AEA Technologies                                                   | PG&E Energy Center |
| December | Controls Connectivity: BACNET? Echelon? What are the options and how do they work together? | John Morris - Echelon<br>Mike Newman - Cornell Univ., Chair ASHRAE BACNET Committee | Gabbiano's         |
| January  | Refrigeration Night                                                                         |                                                                                     | Gabbiano's         |
| February | Variable Speed Pumping and Energy Efficient Hydronic Systems                                |                                                                                     | Gabbiano's         |
| March    | Diversity and Energy Savings in VAV Lab Design                                              | Pete Hmelyer - Phoenix Controls                                                     | Gabbiano's         |
| April    | Utility Deregulation                                                                        |                                                                                     | PG&E Energy Center |
| May      | Field Trip                                                                                  |                                                                                     | ??                 |
| June     | Global Warming and other Environmental Impacts of the HVAC Industry                         |                                                                                     | Gabbiano's         |

**ASHRAE**  
Honor Roll

**KENT M. LIM & COMPANY, INC.**  
SHEETMETAL & MECHANICAL CONTRACTOR  
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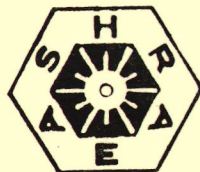


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FAX (415) 822-6437

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**PHIL HARRIS**

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Golden Gate Chapter  
ASHRAE  
370 Brannan Street  
San Francisco, CA 94107

FIRST CLASS MAIL



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OCT 28 1997

**CB** CONSULTING ENGINEERS

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C & B CONSULTING ENGINEERS  
150 SPEAR ST STE 500  
SAN FRANCISCO, CA 94105-1537

# FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVII - NUMBER 2

NOVEMBER, 1997

THURSDAY - NOVEMBER 6, 1997

## CFD Applications in HVAC Engineering

Location: PG&E Energy Center  
851 Howard St, San Francisco  
(between 4<sup>th</sup> and 5<sup>th</sup>)

Social Hour: 5:30 pm

Speaker: Dave Wardclip  
AEA Technologies  
"CFD Applications in HVAC  
Engineering"

Dinner: 6:30 pm

Cost: \$30.00

To Reserve: Please e-mail or fax your dinner reservation to Kent Lim by Monday, November 3<sup>rd</sup>. A fax form is included for your convenience.  
Phone: 415/822-1232  
Fax: 415/822-6437  
E-mail: [ashrae@essinc.com](mailto:ashrae@essinc.com)

CFD or Computational Flow Dynamics has been used for many years in the aerospace and nuclear engineering fields. A mathematical model of fluid flow is converted into a digital computational procedure for use on a computer. The results can approximate and visually model air flow in a room.

The increasing power of desktop computers has made CFD analysis of HVAC systems much more cost/time effective. CFD models have assisted HVAC engineers in numerous projects including the Los Angeles Cathedral and Lawrence Livermore National Laboratories Supercomputer facility. A recent article in the August ASHRAE Journal highlights Computational Flow Dynamics as a two-edged sword.

Dave Wardclip has a BS in Mechanical Engineering from Pennsylvania State University. Karthikeyan Shivaraman has a Masters in Mechanical Engineering from the University of Florida. They are both employed by AEA Technologies in Sacramento, CA., a firm specializing in CFD software, support and analysis to all aspects of engineering including HVAC.

Parking is available across the street from the Energy Center next to Chevy's Restaurant.





## Phoenix Controls

Corporation

**Manufacturer of Precision Airflow Controls**

Bill Schultz, Western Regional Sales Manager  
 2000 Powell Street, #1200 Emeryville, CA 94608  
 Phone: (510) 596-1788 FAX: (510) 596-1789

Distributed in Northern California by  
 Norman Wright Mechanical Equipment Corporation

Airflow Controls



Golden Gate Chapter  
 ASHRAE  
 370 Brannan Street  
 San Francisco, CA 94107



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 C & B CONSULTING ENGINEERS  
 150 SPEAR ST STE 500  
 SAN FRANCISCO, CA 94105-1537

# FOG DISPENSER

Golden Gate Chapter



ASHRAE

January, 1997

VOLUME XXXVI \* NUMBER 4

**HAPPY NEW YEAR**  
**Thursday, January 9, 1997**

**Social Hour:** 5:30 p.m.  
**Dinner:** 6:30 p.m.  
**Location:** Gabbiano's (upstairs)  
 1 Ferry Plaza, San Francisco, CA  
**Cost:** **\$30.00 Note new cost!!!**  
**To Reserve:** Please email, phone or fax your  
 dinner reservation to **Ben Sun by**  
**Monday, January 6.** A fax form is  
 enclosed for your convenience  
**Phone:** (415) 398-3833, Ext. 234  
**FAX:** (415) 433-5311  
**Email:** [bpsun@sf.fk.com](mailto:bpsun@sf.fk.com)

Gabbiano's is located near Pier 2, behind the  
 Ferry Building (Clock Tower), 1 block from the  
 Embarcadero BART station. Valet parking is  
 available.

### ASHRAE HANDBOOK DONATIONS

This year Atma Advani's ASHRAE handbook  
 program has sent 28 handbooks to Egypt and 30  
 handbooks to Romania.

Still there are thousands of handbooks sitting on  
 your shelves, collecting dust, and there are  
 thousands of students in third world countries  
 who cannot afford to buy technical books.

A little effort from you will help a lot. Please  
 bring your used ASHRAE Handbooks (not older  
 than 1980) **to the January meeting**, or call Ron  
 Yaffe, Tempco, (415) 467-8680 to collect from  
 your office.

Thanks to Rich Leao, Norman Wright and  
 Norman Asbjornson, AAON Corporation who  
 donated the shipping costs for the last two  
 shipments.

### January Program

#### Plug Fan Applications

**Tom Berger, Brod & McClung-Pace Co.**  
 Though plug fans often rate low in terms of bare  
 fan efficiency, numerous applications result in  
 favorable system performance, including  
 efficiency.

Noise, size, cost, adaptability, maintenance and  
 power consumption all play a part in applying  
 fans to a given situation. An ideal fan in an  
 ideal system configuration will yield excellent  
 results. But, we are frequently, perhaps usually,  
 faced with less than ideal circumstances. In that  
 case, we must weigh each consideration carefully  
 in order to make the best overall judgment. In  
 many cases, a very strong argument can be made  
 for that fan to be a plug.

The talk will include basic rules and groundwork  
 concerning plug fans, real applications and  
 comparisons to scrolled and vane axial fans.



Tom Berger is an Oregon  
 native who graduated  
 from Oregon State  
 University with a  
 Bachelor's degree in  
 Mechanical Engineering.  
 Upon graduating he went  
 to work for Brod &  
 McClung - Pace Co., a  
 manufacturer of custom  
 air handling equipment  
 in Portland, Oregon. He  
 earned his PE in 1988.

Tom is currently VP of engineering at Pace Co.,  
 He is a member of ASHRAE and is the company  
 liaison with AMCA. Tom splits his time at work  
 between R&D, managing the engineering  
 department and consulting.



**PRESIDENT'S MESSAGE**

Happy Thanksgiving, Merry Christmas, Happy Chanukah etc... It seems as though this year is just going by us in a flash. While I am sure everyone is very busy, don't forget to slow down for a moment and enjoy the season.

Our Chapter is off to another great year. Our December meeting attendance was very good and even though we had a small change of topic, Frank Mayhew followed up last months performance with a small encore, and I believe everyone had a good time.

As we move through the holiday season and you feel the crunch of project, as well as holiday deadlines, keep in mind that ASHRAE Handbook or one of the many other tools you use as a result

of ASHRAE Research. Yes, it is that time of the year as well. The Annual Research Fund Drive has begun! If you didn't get a chance to hear Barbara Dilts' pitch at the last meeting, you'll have more opportunities in the near future. You will find a flyer in the upcoming Fog Dispenser which will outline the benefits of ASHRAE Research and how easy it is to support this valuable part of our organization.

Looking ahead we have some exciting events coming up in the new year. For those of you attending the Winter Meeting in Philadelphia, the programs, technical sessions and the Exposition will be very interesting. We may even be given authorization to charter a Student Chapter at San Francisco State.

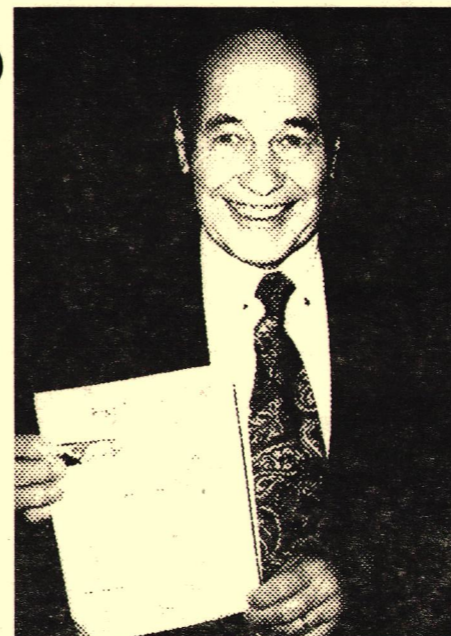
Our own Chapter meetings will start off with a program on Plug Fan Design in January followed by Research Promotion Night in February with Max Shurman giving us the inside scoop on ASHRAE Standards. The Product Show and a great Field Trip are in the planning and we're still looking for a June program. Please forward any ideas to Dan Reiter.

Don't forget, the January meeting is the second Thursday.

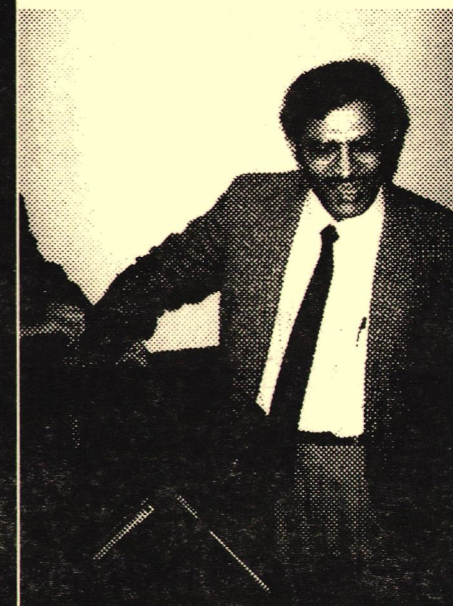
Happy New Year!

**Dennis Thompson**

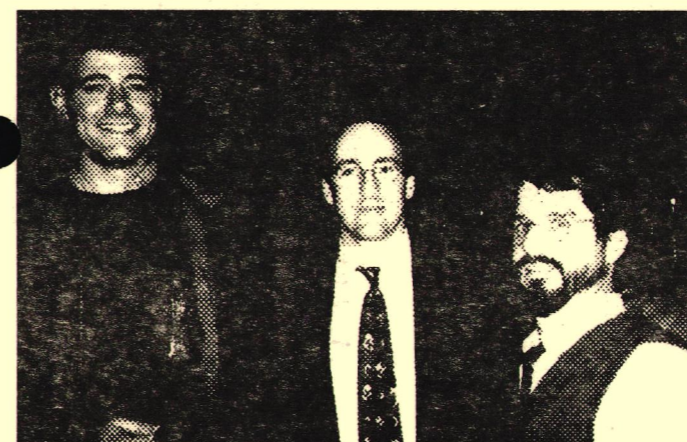
**December 5, 1996 Golden Gate Chapter Meeting**



Walt Schneider shows up with a bit of history he found in his closet, a 1962 *Fog Dispenser*.



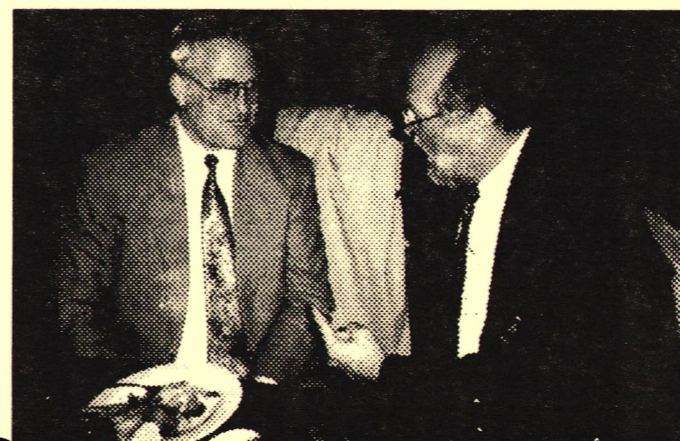
Kuppe Srinivas goes for the big money... and ends up with the whine! Oh well, his loss is someone else's gain. The marble game goes on, next month...



Two Ernies and a Dan are smiling about something!



The Ajmani & Pamidi Crew... Jerry Cruz, Kuppe Srinivas, Ghassan Naaman and Shakeel Ahmed



Tom Reinarts won't eat his vegetables and Frank Mayhew is giving him the word...



Robin James and Matt Williamson our newest members.

**Fog Dispenser Deadlines**

The ninth of the month preceding the meeting.  
All the news that fits gets printed.

Mail, Fax, Phone or email News by 9th of month preceding meeting to:  
**FOG DISPENSER**

Frank Mayhew, Editor EC/TC Consulting  
3160 Hicks Road Sebastopol, CA 95472  
Telephone (707) 824-9381  
FAX (707) 824-9382  
email gravensteininn@metro.net

Photojournalism Editor: Mike Scofield  
Quality Control: Kinnie Scofield

**DO YOU KNOW A PROSPECTIVE NEW MEMBER, or have an address change? Contact ASHRAE**

**Contact Membership Chair:**  
John Small (408) 866-0723  
FAX (408) 866-5899

**Not Getting Your Fog Dispenser? Call John Small... Not Listed in the Roster properly? Had a change of address, or heart, since the last roster? Contact Ginny Gifford**

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

**1996 --1997 OFFICERS**

Dennis Thompson .....President  
Dan Reiter.....President-Elect  
Ernie French.....Secretary  
Mark Hydeman.....Treasurer  
**Board of Governors**  
Ben Sun- Kent Lim - Roy Gifford

**ASHRAE GOLDEN GATE CHAPTER 1996-1997 COMMITTEES AND CHAIRPERSONS**

|                                 |                                         |                                     |
|---------------------------------|-----------------------------------------|-------------------------------------|
| Attendance..... Richard Charles | Awards..... Barbara Dilts               | Auditing..... Hank Mouw             |
| BAEC..... Tom Reinarts          | Code..... Roy Gifford                   | CRC Action..... Dan Reiter          |
| Education..... Jim Brugger      | Energy & Tech..... Joe Olivier          | Fog Dispenser..... Frank Mayhew     |
| Golf..... Mike Rubio            | Government Affairs..... Jon Wintermeyer | Historian..... Hank Mouw            |
| Honor Roll..... Ellen Pierce    | Marble Game..... Edgar DeGuzman         | Membership/Picnic..... John Small   |
| Product Show..... Bob Levi      | PAOE..... Roy Gifford                   | Program..... Dan Reiter             |
| Publicity..... Mike Scofield    | Reception..... Wasil Popov              | Refrigeration..... Dave West        |
| Research..... Barbara Dilts     | Roster..... Tim Provo                   | Scholarship/Travel..... Jim Brugger |
| Seminar..... Joe Olivier        | Tennis..... Rich Leao                   | 1998 Meeting..... Tom Reinarts      |

**ASHRAE GOLDEN GATE CHAPTER  
DINNER RESERVATION FAX**

**For THURSDAY, January 9, 1997(note date)**

**Please send reserve by noon on Monday, January 6**

**FAX TO: Ben Sun - Flack + Kurtz**

**FAX: (415)-433-5311** Please call if you have any last minute changes in plans.

**Phone: (415)-398-3833, Ext. 234** Please cancel your reservation if you cannot attend the meeting.

**Email: bpsun@sf.fk.com**

**FROM:** DICK CHARLES

**COMPANY:** CHARLES & BRAUN

**PHONE:** \_\_\_\_\_

Please make \_\_\_\_\_ reservation(s) for the following people (fill in names below):

DICK CHARLES \_\_\_\_\_

PAUL O'NEILL \_\_\_\_\_

JEFFREY DITTMAN \_\_\_\_\_

**LOCATION:** Gabbiano's (upstairs) 1 Ferry Plaza San Francisco, CA (415) 391-8403

Gabbiano's is located near Pier 2, behind the Ferry Building (Clock Tower), 1 block from the Embarcadero BART station. Limited parking is available along the Embarcadero. Valet parking is also available for \$some.

(Save paper and email)

**ASHRAE RESEARCH Get into the Habit!  
send \$\$\$\$\$ to Barbara Dilts**

**Energy Project Manager  
\$4,251 to \$5,111/Month**

Alameda County General Services Agency is seeking an Energy Project Manager to facilitate the County's utility demand-side management contract and assist in the County's Energy Program. Requires knowledge of energy accounting and energy auditing and P.E. or E.I.T. and four years experience (at least three years energy project/construction management or engineering design exp.) with HVAC boilers, chillers, lighting, building automation systems, and energy retrofits. Obtain application and supplemental questionnaire from:

**Alameda County Personnel & Labor Relations  
100 14th Street  
Oakland, CA 94612**

**ASHRAE Golden Gate Meeting Minutes  
December 5, 1996**

Meeting was called to order at 7:42 pm by Dennis Thompson.

85 Members and guests were present

The Minutes from the November, 1996 meeting were approved as printed in the *Fog Dispenser* with amendments for spelling of names.

A. **Frank Mayhew** announced that his temperature controls class offered through UC Extension will be postponed for one year due to a scheduling conflict.

B. **Mark Hydeman** announced that he and **Steve Taylor** will be teaching the HVAC System Design class starting in February. The class is offered through UC Extension and will be held at the PG&E Energy Center.

C. The OSHPD Safety Board position is open. This is the advisory board that establishes guidelines and serves as the appeals board for the Office of Statewide Health Planning and Development (OSHPD). **Shlomo Rosenfeld** has held the position and is available to answer questions from interested parties. Those interested should submit resumes to the Golden Gate Chapter Board of Governors. The Region X TEGA chair will make the final selections.

D. We were fortunate to have in attendance six students from San Francisco State University, and one from UC Berkeley. Thank you to the following members who sponsored students.

- **Carl Jordan** - Consulting Engineer
- **Mike Rubio** - Norman Wright Co. (2 students)
- **Dennis Thompson** - Trane Company
- **Tom Reinarts** - Keller & Gannon

E. **Jim Brugger** announced that he is again forming a panel of representatives from ASHRAE to visit the local universities and describe careers available in HVAC. Interested parties should contact Jim Brugger.

F. **Barb Dilts** encouraged everyone to contribute to research. The benefits are very significant to all HVAC professionals and to the communities at large. If you donate now, you will not be bothered by a phone call later.

G. The members of ASHRAE national committees were recognized for their generous donations of time and the accomplishments they have attained.

**Max Sherman** - UC Lawrence Berkeley Lab  
**Frank Mayhew** - EC/TC Consulting  
**Tom Reinarts** - Keller & Gannon  
**Steve Taylor** - Taylor Engineering

**Mark Hydeman** - PG&E

H. **Allison Kwok** of the UC Berkeley student chapter reported that **Steve Taylor** would be the speaker at their next meeting.

I. One new member was officially recognized: **Matt Williamson** from Keller & Gannon.

J. Due to air travel problems (medical emergency on board the flight) **Chris Schartz** from Ruskin was unable to attend the meeting. In apologizing Chris agreed that Ruskin will sponsor the next 10 student dinners.

K. **Frank Mayhew** presented his pre-dinner technical follow-up from last month's meeting after dinner. Nice work Frank!

L. Meeting was adjourned at 9:05 pm.

**Respectfully Submitted,  
Ernie French  
1996-1997 Chapter Secretary**

**ATTENTION! ATTENTION!**  
*Note that the meeting is on the **SECOND Thursday** in January and the new cost is \$30.00. Students will pay \$5.00.*

**ASHRAE RESEARCH  
Get into the Habit!**

The Golden Gate Chapter ASHRAE Research campaign has just started, but we're doing well so far. As of December 2, Golden Gate LEADS all other chapters in total dollars contributed. Your contribution will help continue the kinds of research projects Frank Mayhew mentioned at our last Chapter meeting.

Special thanks to the Individual Honor Roll contributors (\$100 or more) and the Corporate Honor Roll contributors (\$150 or more).

**Individual Honor Roll**

|                             |                         |
|-----------------------------|-------------------------|
| <b>Jack A. Palmer</b>       | <b>James L. Myers</b>   |
| <b>Thomas A. Gilbertson</b> | <b>Mike Scofield</b>    |
| <b>Carl H. Jordan</b>       | <b>Hendrik J. Mouw</b>  |
| <b>Frank W. Mayhew</b>      | <b>Barbara S. Dilts</b> |
| <b>Dennis Thompson</b>      | <b>Roy Gifford</b>      |
| <b>Ernie French</b>         | <b>Mark Hydeman</b>     |

**Corporate Honor Roll**

**Pacific Gas & Electric  
Pipe Shields Incorporated  
PLA Corporation**

### People on the Move

This is a new feature of the *Fog Dispenser*. The old saying is that "you can't tell the players without a program". Our industry is constantly in flux, and it is hard to keep up with where everyone is. If you have made a change recently, let us know what's happening, and we will let our members know.

-----  
**Everybody stayed in the same place this month! (or they aren't telling)**

### Little Work--Lots of Glory

Or vice-versa. Grun gy position as executive editor of high-powered, professional monthly news letter catering to exciting air-conditioning industry.

**Meet ridiculous deadlines**, deal with late submissions, tell lost members to call John Small for address changes.

For details on this exciting career opportunity, contact:

Dennis Thompson, President  
 Golden Gate Chapter, ASHRAE  
 (707) 963-2573

### Thought for the Day

Indecision is the key to flexibility

### Employment Opportunity

Leading manufacturer of HVAC Equipment, Building Automation and Temperature Control products is looking for new members to add to our team of professionals. Project Engineering and Technical positions available. Interested in working in a challenging environment with competitive salaries and benefits? Please forward resume and salary expectations to:

**Pacific Coast Trane**  
 310 Soquel Way  
 Sunnyvale, CA 94086  
 Attn: BAS Manager

**California Hydronics Corp.** is looking for inside sales personnel. Must be highly motivated, familiar with computers, and have two years sales experience in the HVAC Industry. Send resume to:  
 P.O. Box 5049  
 Hayward CA 94549-5049

### HVAC Design: Equipment and Distribution Systems

X470 (2 units, 30 hours)

Starting Wednesday February 5, 1997  
 at the Pacific Gas & Electric Energy Center

This course presents the engineering fundamentals and practical considerations for the design of components and layout of HVAC systems and equipment. It is a practical course that outlines the design process for all major HVAC components commonly in use. Lectures cover the selection and specification of components such as fans, coils, filters, pumps, chillers, cooling towers, boilers, water heaters, terminal devices, and air outlets. The design of air and water distribution systems is outlined with consideration for first cost, energy costs, and other practical matters such as space and maintenance. Energy conservation measures are highlighted throughout the course and presented with consideration for energy codes, utility rebate programs and economic evaluation.

Lecturers: **Steven T. Taylor** and **Mark Hydeman**

### WORKSHOPS ON MOISTURE PROBLEMS IN BUILDINGS AND INDOOR BIOCONTAMINANTS

The United States Environmental Protection Agency will present two workshops on indoor biocontaminants and buildings, "*Microorganisms in Indoor Air: Assessment and Evaluation of Health Effects & Probable Causes*" on February 27, 1997, and "*Controlling Microbial Moisture Problems in Buildings*" on February 28, 1997 at the Embassy Suites Hotel in Walnut Creek.

Presented by the University of Tulsa Center for Environmental Research and Technology (CERT), the workshops will be taught by Dr. Harriet Burge and Joseph Lstiburek, two leading national experts rarely seen in the San Francisco Bay Area.

Workshop fees are on a sliding scale: \$225 for one workshop or \$350 for both. Members of co-sponsoring organizations pay \$195/\$275. Public sector employees pay \$100/\$150. For more information and an application, contact CERT at (918) 631-3046, or Fax you request to (918) 631-3268 attention: Nancy Graham.

## FEBRUARY HONOR ROLL

# AF/C

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### SUPPLIERS OF EQUIPMENT TO THE BAY AREA HVAC INDUSTRY

|             |              |                |
|-------------|--------------|----------------|
| Matt Goff   | Jim Nemechek | Jack Hiatt     |
| Scott Moyer | Dave Crum    | Adania McMahon |
| Dean Holton | Pat McMahon  | Dave Sims      |
|             | Tim Casson   |                |




Golden Gate Chapter  
ASHRAE  
370 Brannan Street  
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SAN FRANCISCO, CA 94105-1537

# FOG DISPENSER

Golden Gate Chapter  ASHRAE

VOLUME XXXVI \* NUMBER 5

February, 1997

Thursday, **February 6, 1997**

**Social Hour:** 5:30 p.m.  
**Dinner:** 6:30 p.m.  
**Location:** PG&E Energy Center  
851 Howard St. (Between 4th & 5th)  
San Francisco, CA  
(415) 973-7268

**Cost:** **\$30.00 Note new cost!!!**

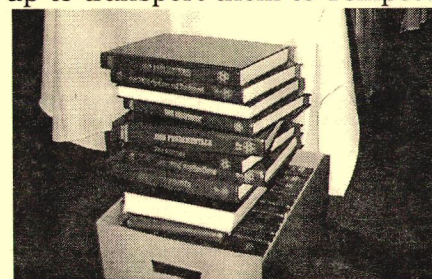
**To Reserve:** Please **email**, phone or fax your dinner reservation to **Ben Sun** by **Monday, February 3**. A fax form is enclosed for your convenience  
(415) 398-3833, Ext. 234  
**FAX:** (415) 433-5311

**Email:** **bpsun@sf.fk.com** (Hint, hint)

The Energy Center is located 2 blocks south of the Powell St. BART Station. Public Parking is available across the street from the Center or at 5th and Howard.

### ASHRAE HANDBOOK DONATIONS

The handbooks, for Atma Advani's Handbooks program, sending handbooks to third world countries, showed up. Unfortunately no one showed up to transport them to Tempco...

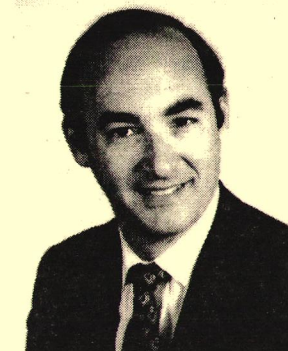


For more information on this valuable program contact Atma Advani at Safeway.

### February Program

#### MAX SHERMAN ASHRAE Technical and Standards Committees

Max Sherman will talk about why ASHRAE is valuable to the profession and what individual volunteers can do to help it. He will talk about how technical and administrative committees interact to accomplish Annual Winter meetings, specifically the technical activities including technical program, standards activities, research activities and handbook activities. This is especially timely given that we will be the host chapter for next years Winter meeting, and we will play a strong role in how successful that meeting is! Max has also spoken to President Hill and will carry a message from him.



Max Sherman is a staff scientist at the Lawrence Berkeley National Laboratory. He manages a research group, the Energy Performance of Buildings group that does work in various aspects of ventilation, thermal energy distribution, and thermal performance. Most of the group's work is funded by either the federal government or the utilities and involves various aspects of HVAC.

Max is involved in numerous ASHRAE technical, standards and administrative committees. He has chaired some of these committees and was the chairman of the Society's Standards Committee last year.

**PRESIDENT'S MESSAGE**



Well everything I heard tells me we had another great meeting in January. Our speaker, on plenum fans, provided some interesting thoughts on how to approach fan design and system performance. I especially want to thank our President-Elect, Dan Reiter for taking over the reins for me

at last months' meeting. It's nice to know you can leave this task in very capable hands.

I happened to be in another part of the world working on a project. Yes, I was actually working in the Philippines, contrary to all the rumors. If you have ever traveled to the Far East you know that, while a great deal of things are different, a great deal of them remain the same. I had the pleasure of working with some people who are about to take over the HVAC operation and maintenance of a 140K sq. ft. semiconductor fabrication and assembly plant. The challenge was that their previous facility had little more than a packaged unit with a self contained thermostat. Operations consisted of changing filters when the unit shutdown on alarm.

Needless to say, we had some major concepts to cover.

While training them on the equipment, systems and applications we provided, we were constantly referring to basic HVAC fundamentals. This is where the universal language of HVAC comes into play. One of the few reference materials they had was the ASHRAE Fundamentals Handbook. Yes, ASHRAE is alive and well in the Philippines. Here we are halfway around the world and still there is a commonality shared.

Of course after I told them about the members of the Golden Gate chapter and our contributions to ASHRAE, they pretty much think I'm the National HVAC advisor to the President...and that's OK with me. I can see the headlines now, "Watergate, White-Watergate, and now Golden Gate."

Remember Research Promotion night in February and come prepared to support the Chapters' goal of \$25,000. We're already \$11,000 down the road and I look to each one of you (and your employers) to help us meet the challenge. As a follow-up to the Winter Meeting, Max Shurman will be sharing with us exactly how ASHRAE Standards are developed and published. We're still looking for a June program, please forward ideas to Dan Reiter.

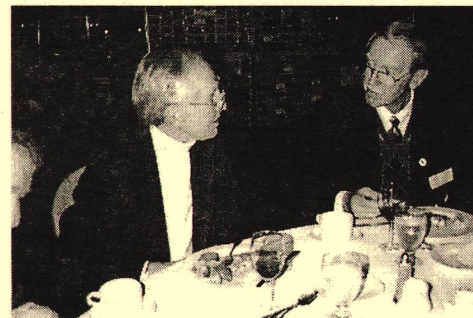
See you in February, at the Energy Center.  
**Dennis Thompson**

**People on the Move**



**Mansour Firouzian, P.E.** has announced the formation of:  
**Engineering Network, Consulting Engineers**  
2105 Torrington Court  
Martinez, CA 94553

**JACK KNIVETON RETIRED**



Here he was seen at the January meeting discussing his retirement plans with **Dick Charles**. Dick, it is reported, has plans for Jack as chairman of several of his committees for the upcoming ASHRAE Winter Meeting in San Francisco in 1998.



Jack was heard talking to **Bob Voelz** about his plan to "play tennis for food".

**Rich Leao** is quoted as saying "You're not going to leave me here all alone are you?"

**Thought for the Day**

If you can smile when things go wrong, you have someone in mind to blame!

**Fog Dispenser Editor Wanted**

The present editor has announced his retirement from editing. The Chapter is looking for a replacement, starting any time.

Candidate should have computer, scanner and printer and about one day- a month.

For details on this exciting career opportunity, contact:

Dennis Thompson, President  
Golden Gate Chapter, ASHRAE  
(408) 481-3643

**ATTENTION! ATTENTION!**

Note that the new dinner cost is \$30.00.  
Students will pay \$5.00.

**It Was Nice to see**



**Past-president Roy Gifford** at the meeting with his lovely wife **Virginia**. **Jim Nemecek** looks on hoping to get his picture in the S.F.. Chronicle.

Among the party-goers at the January meeting was **Peter Simmonds** from Flack + Kurtz, New York. He is hiding out at the SF office. Peter is a member of the ASHRAE Research and Technical Committee.



**Linda McDaid** got in the picture so she could prove, to her boss, that she came to the meeting.

**Fog Dispenser Deadlines**

The ninth of the month preceding the meeting.

All the news that fits gets printed.

Mail, Fax, Phone or email News by 9th of month preceding meeting to:

**FOG DISPENSER**

Frank Mayhew, Editor EC/TC Consulting  
3160 Hicks Road Sebastopol, CA 95472  
Telephone (707) 824-9381  
FAX (707) 824-9382  
email gravensteininn@metro.net

Photojournalism Editor: Mike Scofield  
Quality Control: Kinnie Scofield

Do you know a prospective new member?

**Contact Membership Chair:**

John Small ----- (408) 866-0723  
FAX (408) 866-5899

Have an address change?  
Contact ASHRAE

Not Getting Your Fog Dispenser?  
Call Virginia Gifford...

Not Listed in the Roster properly? Had a change of address, or heart, since the last roster? Contact Ginny Gifford

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**

**1996 --1997 OFFICERS**

Dennis Thompson .....President  
Dan Reiter.....President-Elect  
Ernie French.....Secretary  
Mark Hydeman.....Treasurer  
**Board of Governors**  
Ben Sun- Kent Lim - Roy Gifford

**ASHRAE GOLDEN GATE CHAPTER 1996-1997 COMMITTEES AND CHAIRPERSONS**

|                                 |                                         |                                          |
|---------------------------------|-----------------------------------------|------------------------------------------|
| Attendance..... Richard Charles | Awards..... Barbara Dilts               | Auditing..... Hank Mouw                  |
| BAEC..... Tom Reinarts          | Code..... Roy Gifford                   | CRC Action..... Dan Reiter               |
| Education..... Jim Brugger      | Energy & Tech..... Joe Olivier          | Fog Dispenser..... Frank Mayhew          |
| Golf..... Mike Rubio            | Government Affairs..... Jon Wintermeyer | Historian..... Hank Mouw                 |
| Honor Roll..... Ellen Pierce    | Marble Game..... Edgar DeGuzman         | Membership/Picnic..... John Small        |
| Product Show..... Bob Levi      | PAOE..... Roy Gifford                   | Program..... Dan Reiter                  |
| Publicity..... Mike Scofield    | Reception..... Wasil Popov              | Refrigeration..... Dave West             |
| Research..... Barbara Dilts     | Roster..... Tim Provo                   | Scholarship/Travel..... Jim Brugger      |
| Seminar..... Joe Olivier        | Tennis..... Rich Leao                   | 1998 Meeting.. Dick Charles&Tom Reinarts |

**ASHRAE Golden Gate Meeting Minutes  
January 9, 1997**

Meeting was called to order at 7:39 pm by Dan Reiter.

82 Members and guests were present

The Minutes from the December 1996 meeting were approved as printed in the *Fog Dispenser* with amendments for spelling of names.

A. Dan welcomed three students visiting from the UC Berkeley Student Chapter. Thank you to **Chris Schartz** of Ruskin for Sponsoring their meals.

B. **Joe Olivier** announced that he is considering topics for the Spring Seminar. The leading candidate is Utility Deregulation and its impact on the HVAC industry. Please contact Joe if you have comments on this or other topics.

C. **Mark Hydeman** announced that he and **Steve Taylor** will be teaching their class on HVAC System Design beginning **February 5**. The class is offered through UC Extension and will be held at the PG&E Energy Center.

D. **Tim Provo** announced that the Roster will be in everyone's hands by the next meeting. The format has changed from last year. There is still time for donations to support printing the roster. All donating companies or individuals will be recognized in the traditional "non-advertisement" fashion. Thank you to Tim and to **Ginny Gifford** for their hard work.

E. **Bob Levi** will be in charge of the Product Show scheduled for the April 3rd Meeting. Bob explained that this year's theme will be on Unique Products or Services offered by the participating companies.

F. Research!!!! **Barb Dilts** explained that the envelopes in last month's Fog Dispenser were to be filled with your **Generous** Donation to research. Please give generously. Next month's meeting is Research Promotion night. The speaker will focus on how the research funded by our chapter's donations benefit our industry.

G. **Dan Reiter** announced that March will be Refrigeration Night. The speaker will be Gary Dunn of APCO and will share his experiences with an ammonia refrigeration plant.

H. **Hormoz Janssen** awarded the Travel Grants to **Graham Carter** and to **Jeff Ross Stein** of UC Berkeley. They will be attending the upcoming Winter Meeting in Philadelphia.

J. The elusive blue marble evaded **Ginny Gifford** who did win a nice consolation prize. Thank you to York International for Donating a \$50 Max's gift certificate. Next Month's Pot stands at close to \$600.00.

K. **Tom Berger**, chief engineer for Pace Corporation gave an excellent presentation on the advantages of Plug fans for HVAC systems.

L. Meeting was adjourned at 9:05 pm.

**Respectfully Submitted, Ernie French  
1996-1997 Chapter Secretary**

## ASHRAE RESEARCH

### Did you send your pre-addressed envelope, from last month's *Fog Dispenser*, in to Barbara Dilts?

(Editors note: Barbara doesn't get much mail, or many checks and is waiting patiently by her mail box for your donation to ASHRAE research.)

## In Memory of Paul Rosenthal

Paul E. Rosenthal, Golden Gate and ASHRAE Life Member, passed away in December at the age of 73 from cancer. As an Engineer, Paul worked on many projects in San Francisco, including the Opera House and renovation of the carousel in Golden Gate Park. He was very active in his Mill Valley community as well. Paul is survived by his wife, two children and two grandchildren.

### Bay Area Engineering Council 1997 Engineers Week Banquet

Thursday, February 20, 1997  
Hotel Nikko - 222 Mason St. S.F.  
6:00 PM Social Hour, 7:00 PM Dinner & Meeting  
\$45.00  
Keynote Speaker: Robert Carr, Vice President  
Core Technology, Autodesk, Inc.

**Did You Know** the difference between No. 2 fuel oil and 2-D Diesel oil? Their properties are defined separately in ASTM D396 and D975 respectively. Some properties are essentially the same for both and some are different. For example, Diesel may have a higher flash point than fuel oil. And there are two diesels, one is "low sulfur". Here's how you can tell:

Fuel Oil: High Sulfur, red color  
Diesel:

1. Calif., off-road, high sulfur, red
2. Calif., on-road, low sulfur, red
3. EPA, not Calif., low sulfur, yellow

**Submitted by Carl Jordan**

## HVAC Design: Equipment and Distribution Systems

X470 (2 units, 30 hours)

Starting Wednesday February 5, 1997

at the Pacific Gas & Electric Energy Center

This course presents the engineering fundamentals and practical considerations for the design of components and layout of HVAC systems and equipment. It is a practical course that outlines the design process for all major HVAC components commonly in use. Lectures cover the selection and specification of components such as fans, coils, filters, pumps, chillers, cooling towers, boilers, water heaters, terminal devices, and air outlets. The design of air and water distribution systems is outlined with consideration for first cost, energy costs, and other practical matters such as space and maintenance. Energy conservation measures are highlighted throughout the course and presented with consideration for energy codes, utility rebate programs and economic evaluation.

Lecturers: **Steven T. Taylor** and **Mark Hydeman**  
Call UC Berkeley Extension for information  
(510) 642-4151

## Student Chapter Alive and Well at UCB

Our faculty advisor **Gail Brager**, recently revived the ASHRAE student chapter after a long hiatus. We're now 15 members strong, comprised almost entirely of master's and doctoral students from the Architecture Department and Energy and Resources Group. Last semester, the chapter held four meetings and organized an agenda for the academic year. The first of our activities (a social one) began with a facility tour of the Anchor Brewing Company on Nov. 18, followed by a guest presentation on Nov. 19 by **Steve Taylor** about the revisions to ASHRAE Standard 62-1989. On Dec. 12, two of our members, **Robert Marcial** and **Eric Freitag** unveiled the newest thermal assessment measurement cart. The dynamic, Mike Scofield will present "Building Ventilation: A Heat Pipe Economy Cycle" (1987 ASHRAE Journal Best Paper Award) on January 23, 1997. We thank the Golden Gate chapter for the generous support given to our chapter and invite all members to our upcoming activities. Stay tuned for our web site, currently under construction.

Respectfully submitted,  
**Alison Kwok**, President;  
**Graham Carter**, Vice-President;  
**Robert Marcial**, Secretary.

## WORKSHOPS ON MOISTURE PROBLEMS IN BUILDINGS AND INDOOR BIOCONTAMINANTS

The United States Environmental Protection Agency will present two workshops on indoor biocontaminants and buildings, "*Microorganisms in Indoor Air: Assessment and Evaluation of Health Effects & Probable Causes*" on February 27, 1997, and "*Controlling Microbial Moisture Problems in Buildings*" on February 28, 1997 at the Embassy Suites Hotel in Walnut Creek.

Presented by the University of Tulsa Center for Environmental Research and Technology (CERT), the workshops will be taught by Dr. Harriet Burge and Joseph Lstiburek, two leading national experts rarely seen in the San Francisco Bay Area.

Workshop fees are on a sliding scale: \$225 for one workshop or \$350 for both. Members of ASHRAE pay \$195/\$275. Public sector employees pay \$100/\$150. For more information and an application, contact CERT at (918) 631-3046, or Fax your request to (918) 631-3268 attention: Nancy Graham.

## Employment Opportunities

**Engineers:** Two positions for ME's with 2-10 years experience. Positions involve review, analysis, and writing of technology assessments, R&D results interpreting, user guidelines, and other technology transfer in the following two areas:

- HVAC/lighting/elec. and gas commercial-sector technologies
- Power generation and emissions control

No engineering design involved. Positions require broad view.

Send resume and copy of recent writing sample to:

**Ms. Saunders, BKI**  
**501 14th Street, Suite 200**  
**Oakland, CA 94612.**

Leading manufacturer of HVAC Equipment, Building Automation and Temperature Control products is looking for new members to add to our team of professionals. Project Engineering and Technical positions available. Interested in working in a challenging environment with competitive salaries and benefits? Please forward resume and salary expectations to:

**Pacific Coast Trane**  
**310 Soquel Way**  
**Sunnyvale, CA 94086**  
**Attn: BAS Manager**



# Air Treatment Corporation

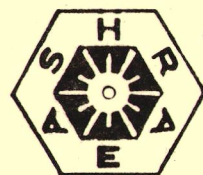
HVAC Manufacturers Representative

6116 MERCED AVE., #303  
OAKLAND, CA 94611  
PHONE: (510) 655-3990  
FAX: (510) 655-7966

## ABB VARIABLE SPEED DRIVES

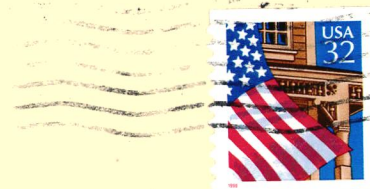


DAVID H. EISENBERG, P.E.  
DAN NOONE  
ROY GALE (SACRAMENTO)



Golden Gate Chapter  
ASHRAE  
370 Brannan Street  
San Francisco, CA 94107

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# FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVI \* NUMBER 6

March, 1997

Thursday, March 6, 1997

March Program

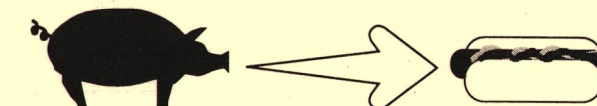
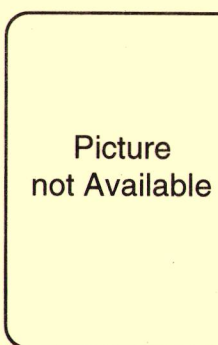
Gary Dunn

### Sausage Plant Ammonia Refrigeration Case Study

Gary Dunn will talk about an ammonia refrigeration project at the Ito-Cariani Sausage Plant. He will also touch on equipment loads, safety and emergency response to ammonia.

Gary Dunn has a B.S. in Environmental Engineering from Cal Poly at San Luis Obispo and is a California P.E. He is the president of Applied Process Cooling Corporation (APCCO). Gary has

extensive experience in industrial systems using R-22, R-717, or Ammonia. Projects include poultry processing, dairy processing, cold storage, vegetable packing, ice making, bakeries, winery, fish processing, meat packing and frozen food facilities.



**Social Hour:** 5:30 p.m. (Happy hour beverages downstairs, be happy)

**Dinner:** 6:30 p.m.

**Location:** Gabbiano's (upstairs)  
1 Ferry Plaza  
San Francisco, CA

**Cost:** \$30.00 Note new cost!!!

**To Reserve:** Please **email**, phone or fax your dinner reservation to **Ben Sun** by **Monday, March 3**. A fax form is enclosed for your convenience

**Phone:** (415) 398-3833, Ext. 234  
**FAX:** (415) 433-5311

**Email:** [bpsun@sf.fk.com](mailto:bpsun@sf.fk.com) (Hint, hint)

Gabbiano's is located near Pier 2, behind the Ferry Building (Clock Tower), 1 block from the Embarcadero BART station.

### PRODUCT and SERVICE SHOW

Thursday, April 3, 1997

3:00 p.m. to 6:30 p.m.

PG&E Energy Center

A table top display of vendors' products and services will be presented prior to the April Meeting. Exhibitors will be able to address the membership with a story about the most interesting application of their product.

Deadline for application is March 20. For information or application call Bob Levi at 510/635-1237

**PRESIDENT'S MESSAGE**



Who would have thought that just one year ago the Board of Governors wasn't even thinking about a Golden Gate Chapter Web Page, a Chapter Section in the Wine Country, and Chartering a Student Chapter at San Francisco State University. A nice change in this year's Product Show will invite both firms with both HVAC related Products and Services as well. These are just a few of the exciting changes our members will see in the upcoming year. Efforts on projects like these help put ASHRAE and the Golden Gate Chapter in front of the future HVAC community. I am confident these changes will effect our members in a very positive way.

As Barbara Dilts and I were up on the soapbox for Research Promotion last week, I challenged each one of our Members (and key vendor/service firms) to actively support this years's fund raising effort. I am very proud to say the Board has earned ASHRAE's Full Circle Award for each member giving at the Honor Roll level. This is a key example of how committed we are to this program. If we haven't heard from you yet, you still have the March meeting to give before we call you during the Research Phone-A-Thon the following week.

We're back at Gabbiano's this month. See you there!

**Dennis Thompson**

I once heard a saying that "Trying to stop change is like trying to stop breathing, eventually you will succeed....and die." I am finally beginning to accept this little fact about life and look forward to facing the challenges of change instead of fighting the inevitable. As I was walking the floor at the Winter meeting in Philadelphia I was amazed at all of the new technologies introduced into our industry in the last 10 to 15 years. Each one of these has challenged us to change how we study, design, install, maintain and market our products and services. Just when you think you've got it all figured out, someone changes the playing field. That's what makes this business interesting.

**Fog Dispenser Deadlines**

The ninth of the month preceding the meeting.

All the news that fits gets printed.

Mail, Fax, Phone or email News by 9th of month preceding meeting to:

**FOG DISPENSER**

Frank Mayhew, Editor EC/TC Consulting  
3160 Hicks Road Sebastopol, CA 95472  
Telephone (707) 824-9381  
FAX (707) 824-9382  
email gravensteininn@metro.net

Photojournalism Editor: Mike Scofield  
Quality Control: Kinnie Scofield

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**Contact Membership Chair:**  
John Small ..... (408) 866-0723  
FAX (408) 866-5899

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(510) 798-7987**

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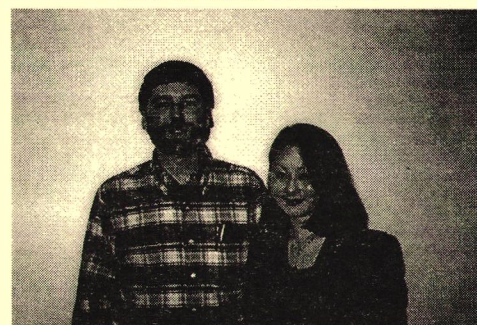
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| Research..... Barbara Dilts     | Roster..... Tim Provo                   | Scholarship/Travel..... Jim Brugger      |
| Seminar..... Joe Olivier        | Tennis..... Rich Leao                   | 1998 Meeting.. Dick Charles&Tom Reinarts |

**New Members**



New members to ASHRAE are **John Wilson** and **Jean Choi**. Jean is a sales engineer at Carrier.

**Wine Country ASHRAE**

Within the next 30 days, an extraordinary meeting will be held at the North Coast Builders Exchange in Santa Rosa to discuss the possibility of forming a Wine Country Section of the Golden Gate Chapter of ASHRAE. The intent is to have monthly meetings and activities in the Napa-Sonoma-Marin area for ASHRAE members that can't attend Golden Gate ASHRAE meetings in San Francisco.

Anyone who would be interested in serving on the Steering Committee should contact Mike Scofield at (707) 829-2080

**Fog Dispenser Editor Still Wanted**

The present editor has announced his retirement from editing. The Chapter is looking for a replacement, starting any time.

Candidate should have computer, scanner and printer and about one day± a month.

For details on this exciting career opportunity, contact:

Dennis Thompson, President  
Golden Gate Chapter, ASHRAE  
(408) 481-3643

**GOLF TIME**



**Friday, June 20 (or June 6th)**  
**Harding Park**  
**Shotgun Start 1:00 PM**  
Dinner and awards ceremony directly after.

For further information and comment please contact Mike Rubio at 415-777-5333

**HELP Wanted ASHRAE Winter Meeting In San Francisco**



**Tom Reinarts** put out the plea for volunteers for the 1998 ASHRAE Winter Meeting. Contact Tom at (415) 621-1199 to volunteer your services (or volunteer someone else that owes you big time).

**JACKPOT ALERT**



Max Sherman held the lucky number for the marble draw at the February meeting, but left with a bottle of wine instead of the \$620 in the pot.

Ed DeGuzman reports that there will be over \$700 in the pot this next month and the odds are 1:4. Support ASHRAE Research and Scholarship with a few tickets and maybe you will be the BIG WINNER...

**ASHRAE Golden Gate Meeting Minutes  
March 6, 1997**

Self Introduction - 7:40

January minutes were approved .

Thanks to the student's sponsors.

Paul Rosenthal passed away on December 26, 1996 and a moment of silence was taken.

Tim Provo announced that the roster is ready for print, and we need more sponsors.

Jim Brugger announced the education committee will hold an Engineer's Weekend at Lawrence Hall of Science on the 15th and 16th of March.

Bob Levi announced the product show in April will be at the Energy Center as usual.

Ben Sun announced the Golf Tournament will be at Harding Park on June 6th (this may be June 20th, ed.), 1:30 P.M. - shotgun start.

Barbara Dilts solicited Research Donations and noted that we are off to a good start by having approximately \$14,000 with a goal of \$25,000.

Tom Reinarts spoke about the National Meeting in San Francisco next year. We need at least 150 volunteers. We want to have a great meeting and interesting tours. There is a lot to do.

Tom Reinarts also is the Regional Vice Chair of technical awards and requested that the Golden Gate Chapter submit applications for technical awards.

Tom Reinarts thirdly solicited Fog Dispenser Honor Roll Donations.

Nominating Committee ballot was slated to be Rich Leao, Rich Paillon, Jim Nemechek, Gail Brager, and Jack Kniveton.

Dennis announced CRC will be in Phoenix, Arizona this year.

Our speaker won the Marble Draw, but did not select the blue marble. It should be up to \$700 next meeting.

Max Sherman spoke on the workings of the ASHRAE Society, specifically, how technical and standard committees work. It was a very interesting and enlightening talk.

**Respectfully Submitted,  
Dan Reiter, Sitting In Secretary**

**Thought for the Day**  
There is absolutely no substitute for a genuine lack of preparation.

**ASHRAE RESEARCH--Get into the Habit!**



The annual Research Phon-a-thon is scheduled for March. The Board has already volunteered to help. Want to join us for several hours of pizza and fun? Call me at 415-973-2030. Want to avoid a phone call? Send your contribution soon.

A question at our meeting was "What's the average contribution?" Average Golden Gate member contribution to date: \$75.26 (of the 47 members who have contributed).

Average Golden Gate corporate contribution to date: \$1,031.81

Society's goal per member \$34.48

Never contributed before? How about \$25? (\$5 less than dinner.) OR, contribute as much as you are willing to contribute next year.

Please make your checks payable to ASHRAE Research. Mail them to:

**ASHRAE Research, c/o Barbara Dilts  
2425 Acton Street,  
Berkeley, CA 94702,**

OR, use the ASHRAE Research envelope enclosed in the January Fog Dispenser.

Special thanks to the following who joined the list of Individual Honor Roll contributors (\$100 or more) and the Corporate Honor Roll contributors (\$150 or more).

**Individual Honor Roll**

**Corporate Honor Roll**

|               |           |                   |
|---------------|-----------|-------------------|
| Gail Brager   | Ben Sun   | Ajmani and Pamidi |
| Jack Kniveton | Tom White | Gayner Engineers  |
| Dan Reiter    | Art Zigas |                   |

**Bay Area Engineering Council**  
**1997 Engineers Week Banquet**

Thursday, March 20, 1997  
Hotel Nikko - 222 Mason St. S.F.  
6:00 PM Social Hour, 7:00 PM Dinner & Meeting  
\$45.00  
Keynote Speaker: Robert Carr, Vice President  
Core Technology, Autodesk, Inc.

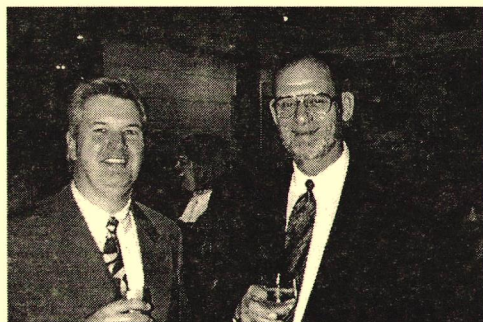
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The United States Environmental Protection Agency will present two workshops on indoor biocontaminants and buildings, "*Microorganisms in Indoor Air: Assessment and Evaluation of Health Effects & Probable Causes*" on March 27, 1997, and "*Controlling Microbial Moisture Problems in Buildings*" on March 28, 1997 at the Embassy Suites Hotel in Walnut Creek.

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Workshop fees are on a sliding scale: \$225 for one workshop or \$350 for both. Members of ASHRAE pay \$195/\$275. Public sector employees pay \$100/\$150. For more information and an application, contact CERT at (918) 631-3046, or Fax your request to (918) 631-3268 attention: Nancy Graham.

### People on the Move



**Patrick J. McMahon** (left) has joined Air Filter Control in Redwood City. (415) 367-8310

**Jim Davis** is now the Lead Mechanical Engineer for Performance Contracting at Johnson Controls in Hayward.

## Employment Opportunities

### POSITION WANTED

Bay Area mechanical engineer seeking a position in product design, HVAC design, or energy conservation. Background of 25 years in product development, research, residential and commercial HVAC design, and energy conservation. California PE registration.

**Please contact Stan Boghosian at  
510-845-7468.**

### HVAC Engineer

Established Mechanical/Plumbing/Electrical engineering firm in Santa Rosa has an opening for a qualified mechanical engineer. Requires 3 to 8 years experience in HVAC design for commercial and educational building projects. Excellent benefits and working environment. Please mail or fax resume to:

**Murakami, Myers & Horn Engineers**  
1211 N. Dutton Avenue, Suite D  
Santa Rosa, CA 95401  
Fax (707) 546-5733

### Position Available

BSME with five or more years of experience on design of industrial facilities and an EIT are required (PE preferred). Experience in the design of Food, Beverage, Pharmaceutical and Biotech facilities is a plus. Responsibilities include engineering design of HVAC, utility and plumbing systems for small through large size projects including scopes, estimates, drawings, specifications and equipment procurement. Our work is performed in an informal team environment, using state-of-the-art computer tools for development and production of designs. The successful candidate will supervise other engineers and designers, make presentations to clients and contribute to the team environment through leadership and oral/written communications.

Please send your resume, in complete confidence to:

**FLUOR DANIEL DEPT. 6**  
**395 OYSTER POINT BLVD., SUITE 321**  
**SOUTH SAN FRANCISCO, CA 94080**

We support a drug-free workplace through pre-employment chemical screening. We are an equal opportunity employer that recognizes the value of a diverse work force M/F/DN

Leading manufacturer of HVAC Equipment, Building Automation and Temperature Control products is looking for new members to add to our team of professionals. Project Engineering and Technical positions available. Interested in working in a challenging environment with competitive salaries and benefits? Please forward resume and salary expectations to:

**Pacific Coast Trane**  
310 Soquel Way  
Sunnyvale, CA 94086  
Attn: BAS Manager

**ASHRAE GOLDEN GATE CHAPTER  
 DINNER RESERVATION FAX  
 For THURSDAY, March 6 1997  
 Please send reserve by noon on Monday, March 3**

FAX TO: Ben Sun - Flack + Kurtz

FAX: (415)-433-5311 Please call if you have any last minute changes in plans.

Phone: (415)-398-3833, Ext. 234 Please cancel your reservation if you cannot attend the meeting.

**Email: bpsun@sf.fk.com**

FROM: DICK CHARLES

COMPANY: C&B ENGINEERS

PHONE: 442 0110

Please make 2 reservation(s) for the following people (fill in names below):

JEFFREY DITTMAN

JEFFREY VIOLET

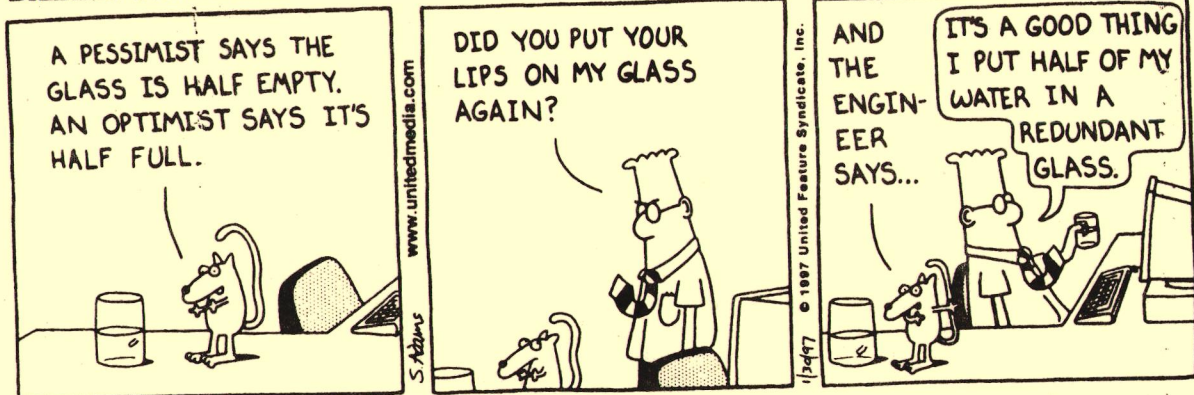
LOCATION: Gabbiano's (upstairs) 1 Ferry Plaza San Francisco, CA (415) 391-8403

Gabbiano's is located near Pier 2, behind the Ferry Building (Clock Tower), 1 block from the Embarcadero BART station. Limited parking is available along the Embarcadero. Valet parking is also available for \$some.

(email your reservation and send the money you save to ASHRAE Research)

**ASHRAE RESEARCH Get into the Habit!  
 send \$\$\$\$\$ to Barbara Dilts**

**DILBERT** Scott Adams



433 5311

**ASHRAE**  
Honor Roll

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Bay Area Sales Staff

\*Chuck Shane, \*Eric Tinglof, \*Doug Herbert, \*Ron Yaffe, \*Mark Hardin, \*Willie Gee, Andre Shinshiro, \*Jay Patel, Stephanie Sanford.

\*Ashrae Members



Golden Gate Chapter  
ASHRAE  
370 Brannan Street  
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# FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVI - NUMBER 7

April, 1997

**Thursday, April 3, 1997**

**Pre-Dinner:** 3:00 p.m.  
**ANNUAL PRODUCT SHOW**  
Table Top Displays on the 2nd floor.

**Social Hour:** 5:00 p.m. Happy Hour upstairs among the exhibits. First beverage of the evening will be compliments of the Product Show vendors!

**Dinner:** 6:30 p.m.

**Location:** PG&E Energy Center  
851 Howard St. (Between 4th & 5th)  
San Francisco, CA  
(415) 973-7268

**Cost:** \$30.00

**To Reserve:** Please **email**, phone or fax your dinner reservation to **Ben Sun by Monday, March 31**. A fax form is enclosed for your convenience, however Ben would appreciate your use of a new technology...email.

**Phone:** (415) 398-3833, Ext. 234  
**FAX:** (415) 433-5311

**Email:** [bpsun@sf.fk.com](mailto:bpsun@sf.fk.com) (Hint, hint)

The Energy Center is located 2 blocks south of the Powell St. BART Station. Public Parking is available across the street from the Center or at 5th and Howard.

**APRIL IS STUDENTS NIGHT**

We will be encouraging students from local schools to attend. Please share this information with any students you know who might be interested. We will also invite and encourage you to sponsor students (at \$30 each). Please indicate your support on the fax return form.

**APRIL PROGRAM**  
Applications of Exhibitors' Products and Services

**SPEAKERS**

**Product and Service Show Participants**  
Participants in the Product and Service Show will make a brief 30-second presentation about the most interesting, significant, largest, smallest, or toughest application of their company's product or service.

**Product and Service Show Prizes:**  
Those registered for dinner are eligible to win a variety of prizes.

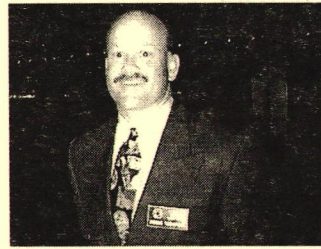
**To Get More Product And Service Information:**

When you arrive at the Show, pick up an Information Request Form. When you see a Product or Service that you would like more information about, simply circle the vendor's booth number, and turn in your card at the designated location. The exhibitors will send you additional information.

There are still a few booth spaces available. To exhibit at the Product and Service Show, please contact Bob Levi (510) 635-1237

**PG&E Energy Center Presents**  
**Advanced Data Collection Workshop:**  
**Tools and Techniques for Field Assessment of Pumps and Fans**  
April 22, 1997 10:00 AM to 4:30 PM

**PRESIDENT'S MESSAGE**



Happy Easter!

Just when you thought it was safe to really get after those New Years' resolutions, here comes yet another Holiday to throw things out of control. However you

celebrate, I hope you enjoy the season.

In addition to all this, we have a very busy few months left in our ASHRAE season. As most of you know this month we will be holding the Product Show before (and during) our regular meeting. This is a great chance for Consultants, Building Engineers and Operators, Contractors and yes, even Vendors to get together and see what is new and improved in HVAC Products and Services. I highlight Services because this year we have added a new twist to the program. The Product Show committee thought it would be interesting to give those companies who sell services such as consulting a shot at the opportunity as well.

The success of the Product and Services Show is dependent upon not only the participants, but also the attendees. I strongly encourage all of you to get out of the office an hour earlier and get over to the Energy Center and spend some quality time with the manufacturers. They're great people and they don't bite. Chances are very good you will pick up

something you can use when you get back to the office the next day.

Right after April we move into May and the upcoming CRC meeting in Tempe, Arizona. As I said last month, this is a great opportunity for people involved at all levels of the chapter to meet and exchange ideas on Chapter Operations. Please submit any and all motions of ideas to your Board member by April 11th.

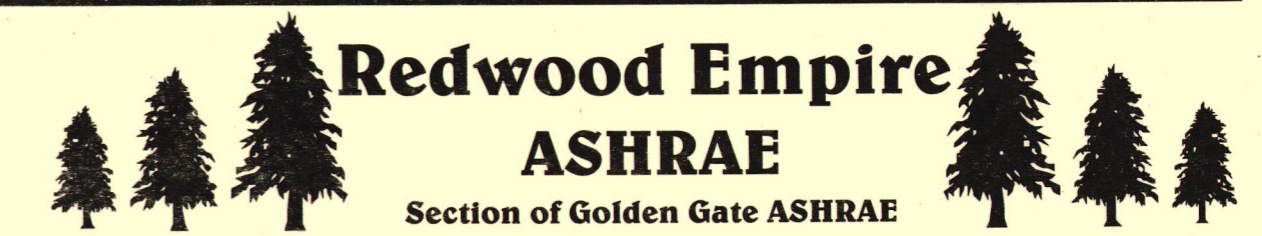
We meet on the second Thursday of May for the Field trip. Dan Reiter has arranged for a tour of the Marriott Hotel in San Francisco which has been refurbished to become one of the most energy efficient places in the area. This should be a great tour and as usual the dinner afterwards will be great.

My thanks (and Barbara's) to all those who assisted with the Research Phone-a-Thon. We raised a few bucks and had a great time. To all those who contributed, thank you and to those of you who we left messages with, we'll still take your money.

We have a lot of great activities and opportunities to get involved. So don't be shy about jumping in on the fun. I guarantee any one of these events will be worth your time.

See you at the Show!

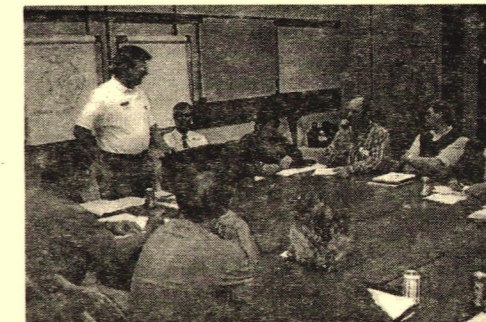
**Dennis Thompson**



**First Meeting of Redwood Empire ASHRAE**

The first meeting of those interested in forming a new ASHRAE section was held on March 5, 1997 at the North Coast Builders Exchange in Santa Rosa.

The new group will be known as the **Redwood Empire Section of the Golden Gate Chapter of ASHRAE**. The cities of Santa Rosa, Sonoma, and Napa are under consideration as possible meeting locations. Initially, meetings will be scheduled quarterly.

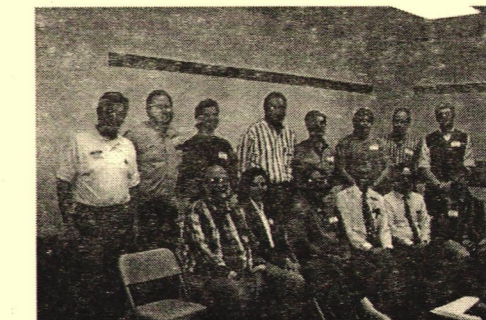


**Dean Borges**, Region X Chair convened the organizing meeting of the new Redwood Empire ASHRAE Section of the Golden Gate Chapter.

**Mike Scofield Elected Chair of Redwood Empire Section**



Six of the Steering Committee members were named to act as interim officers for the new Section Chapter, from left to right: **Frank Mayhew**, Newsletter; **Leo Copper, Jr.**, Programs; **Dean Borges**, Region X Director; **Paul Irwin**, Treasurer; **Phil Russo**, Membership; **Mike Scofield**, Section Chair; **Pat Bailey**, Secretary.



Present at the first meeting of the Steering Committee were, from left to right, top row: **Dean Borges**, Borges Engineering; **Larry Nelson**, Hewlett Packard; **Paul Larkin**, Larkin & Associates; **Paul Irwin**, Bell Products; **Phil Russo**, H&C Metal Products; **Rick Reis**, Paragon Controls; **Pat Bailey**, RLW Analytics; and **Jim Horn**, Murakami, Myers & Horn Engineers. Bottom Row: **Frank Mayhew**, EC/TC Consulting; **Dorothy Spaet**, Palm Drive Hospital; **Leo Copper, Jr.**, Climate Mechanical; **Mike Scofield**, Conservation Mechanical Systems; **Sukhi Sandhu**, Industrial Power Technology; **Dan Reiter**, Winzler & Kelley Consulting Engineers. Not pictured; professor Mike Caldwell, Sonoma State University.

**Next Steering Committee Meeting**

The next Steering Committee meeting will be held at the offices of Winzler & Kelley on April 2nd. Those interested in joining the Steering Committee should contact Mike Scofield at (707) 829-2080.

A Charter Meeting for this new Section Chapter has been tentatively scheduled for May or June of this year. Those interested in receiving membership information and mailings of future meeting announcements should contact Mr. Phil Russo at (707) 546-3042, or, FAX at (707) 546-6012.

**Fog Dispenser Deadlines**  
 The ninth of the month preceding the meeting.  
 All the news that fits gets printed.  
 Mail, Fax, Phone or email News by 9th of month preceding meeting to:  
**FOG DISPENSER**  
 Frank Mayhew, Editor EC/TC Consulting  
 3160 Hicks Road Sebastopol, CA 95472  
 Telephone (707) 824-9381  
 FAX (707) 824-9382  
 email gravensteininn@metro.net  
 Photojournalism Editor: Mike Scofield  
 Quality Control: Kinnie Scofield

**Do you know a prospective new member?**  
**Contact Membership Chair:**  
 John Small (408) 866-0723  
 FAX (408) 866-5899  
**Have an address change?**  
**Contact 1-800-8ASHRAE**  
**Not Listed in the Roster properly?**  
**Not Getting Your Fog Dispenser?**  
**Call Virginia Gifford.**  
**(510) 798-7987**

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**

**1996 --1997 OFFICERS**  
 Dennis Thompson .....President  
 Dan Reiter.....President-Elect  
 Ernie French.....Secretary  
 Mark Hydeman.....Treasurer  
**Board of Governors**  
 Ben Sun- Kent Lim - Roy Gifford

| ASHRAE GOLDEN GATE CHAPTER 1996-1997 COMMITTEES AND CHAIRPERSONS |                                         |                                            |
|------------------------------------------------------------------|-----------------------------------------|--------------------------------------------|
| Attendance..... Richard Charles                                  | Awards..... Barbara Dilts               | Auditing..... Hank Mouw                    |
| BAEC..... Tom Reinarts                                           | Code..... Roy Gifford                   | CRC Action..... Dan Reiter                 |
| Education..... Jim Brugger                                       | Energy & Tech..... Joe Olivier          | Fog Dispenser..... Frank Mayhew            |
| Golf..... Mike Rubio                                             | Government Affairs..... Jon Wintermeyer | Historian..... Hank Mouw                   |
| Honor Roll..... Ellen Pierce                                     | Marble Game..... Edgar DeGuzman         | Membership/Picnic..... John Small          |
| Product Show..... Bob Levi                                       | PAOE..... Roy Gifford                   | Program..... Dan Reiter                    |
| Publicity..... Mike Scofield                                     | Reception..... Wasil Popov              | Refrigeration..... Dave West               |
| Research..... Barbara Dilts                                      | Roster..... Tim Provo                   | Scholarship/Travel..... Jim Brugger        |
| Seminar..... Joe Olivier                                         | Tennis..... Rich Leao                   | 1998 Meeting.. Dick Charles & Tom Reinarts |

**ASHRAE Golden Gate Meeting Minutes  
March 6th, 1997  
Chapter Meeting Minutes**

Meeting was called to order at 7:20 PM

82 people present.

A. Minutes from the February meeting were approved as printed in the Fog Dispenser.

B. New Business

1. Thanks to Tim Provo for completing the roster and distributing to chapter members. Special appreciation to Virginia Gifford for her tireless work with the Database. **Note to chapter members... "It is your responsibility to keep your information up to date. Changes can be made by calling 1-800-5ASHRAE."**

2. Bob Levi announced that the product and services show will be held as part of the April Meeting. All companies or individuals interested in participating should sign up by March 21st.

3. Joe Olivier, Seminar Chair, asked for chapter input in finalizing the seminar topic. The choices were a) working with ESCOs (Energy Service Companies) in a deregulated market; b) Electrical Engineering for Mechanical Engineers; c) System analysis and verification using data collection methods. It appeared choice c) was the most popular. The Seminar will be held in May.

4. The Golf tournament will be held on June 20th at Harding Park in San Francisco. Announcements and registration forms will be appearing in the upcoming fog dispensers.

5. Barb Dilts announced the chapter has raised over \$ 15,000 towards its goal of \$ 25,000 for ASHRAE Research. Tuesday March 11th will be the telephone drive.

6. Glenn Friedman has been elected President of the ACCA, the largest trade association in the industry. The annual meeting will be held in Beverly Hills. Contact Glenn for more information.

7. The nominating committee consisting of Gail Brager, Barbara Dilts, Jack Kniveton, Richard Leao, and Jim Nemechek selected Joe Olivier for the position of 1st year board member. The floor was opened for nominations. No other candidates were nominated.

8. Dean Borges, the Regional Director for Region X, announced that CRC will be held in May. He congratulated Golden Gate Chapter for sponsoring the formation of a new student chapter at San Francisco State University. The annual June

meeting will be held in Boston. He also reminded us that the Golden Gate Chapter will be hosting the 1998 Winter meeting here in San Francisco.

9. Tom Reinarts is chair of the Host committee for the 1998 winter meeting and is looking for volunteers.

10. Tom White is doing well, misses ASHRAE, but is unable to attend due to his wife's illness. Best wishes to Tom and his wife...our thoughts are with him.

11. A chapter section is being proposed for the North Bay, and Wine Country region. The proposed section will be called The Redwood Empire. An organizational meeting has been held. Mike Scofield will be the section Chairperson. The proposal will be presented to the Board of Governors for approval.

12. Frank Mayhew won the marble draw (over \$700) and very generously pledged half the money to ASHRAE Research.

13. Gary Dunn of APCO gave a very interesting presentation on the design and construction of an Ammonia Refrigeration Plant.

The meeting was adjourned at 9:05 PM.

### Board Announcements

During the March 11th Board Meeting, the formation of the Redwood Empire Section was formally approved. Mike Scofield is the section Chairperson. Dan Reiter will be the Chapter Liaison. Congratulations to all new members of the Redwood Empire Section.

**Respectfully Submitted,  
Ernie French, Secretary**

### **New Members**

Please welcome the following new members to our Chapter:

|                                  |                                     |
|----------------------------------|-------------------------------------|
| <b>David Phillips</b> .....      | <b>Technical Services, PG&amp;E</b> |
| <b>Don Strassman</b> .....       | <b>Technical Services, PG&amp;E</b> |
| <b>David Phillips</b> .....      | <b>Johnstone Supply</b>             |
| <b>Svetlana Zabruskaya</b> ..... | <b>Landis &amp; Staefa</b>          |
| <b>Raymond Wong</b> .....        | <b>York International</b>           |
| <b>Mike Southworth</b> .....     | <b>Winzler &amp; Kelley</b>         |
| <b>Rick Myers</b> .....          | <b>Student</b>                      |
| <b>Bill Murray</b> .....         | <b>Critchfield Mechanical</b>       |
| <b>Sia Karrobi</b> .....         | <b>Air Reps West</b>                |
| <b>Dan Noone</b> .....           | <b>Air Treatment Corp.</b>          |
| <b>Matthew Williamson</b> .....  | <b>Keller &amp; Gannon</b>          |
| <b>Brian Lee</b> .....           | <b>Student</b>                      |

If you know of someone who would benefit from ASHRAE membership, contact John Small (408) 866-0723

## ASHRAE Research - Join Us!

The annual ASHRAE Research campaign is doing just fine thanks to the generosity of members and companies. Our Chapter goal is \$25,000. So far, folks have contributed \$15,375. In addition, the Research Phonathon collected over \$2600 in pledges! Many thanks to Jim Davis, John Vernon, Wayne Gaw, Richard Nagy, Joe Olivier, Kent Lim, Mark Hydeman, Ernie French, Dan Reiter, and Dennis Thompson for their enthusiasm, time and support.

If we didn't reach you, don't despair. Your donations are still needed.

### Wanted:

- About **30** more Member Honor Roll donations (\$100)
- About **200** smaller donations (our Chapter has a LOT of members)
- Contributions from your company (so far we only have 12) Corporate Honor Roll is \$150

Make your check payable to ASHRAE Research and mail it to:

**ASHRAE Research**  
c/o Barbara Dilts  
2425 Acton Street  
Berkeley, CA 94702

**New Individual  
Honor Roll**  
Dale Yager  
Jim Nemechek  
Tom Reinarts

**New Corporate  
Honor Roll**  
Kent Lim & Company  
Keller & Gannon

## Employment Opportunities

### POSITION WANTED

Bay Area mechanical engineer seeking a position in product design, HVAC design, or energy conservation. Background of 25 years in product development, research, residential and commercial HVAC design, and energy conservation. California PE registration.

**Please contact Stan Boghosian at  
510-845-7468.**

### Mechanical Engineer

M/E consulting engineering firm has opening for Mechanical Engineer with five years experience. Position involves HVAC design for commercial, industrial and institutional buildings. Require experience with packaged and built-up HVAC systems. Please mail resume to:

**Dallas Voigtlander**  
BWF Consulting Engineers  
510 Myrtle Avenue, Suite 100  
South San Francisco, CA 94080

### Thought for the Day

Why is the word abbreviation so long???

## Fog Dispenser Editor Found (at last)

Paco Pumps has come forward and volunteered to take over the *Fog Dispenser* editing job. The present editor wishes to thank all of you that volunteered last month.

## HELP Wanted ASHRAE Winter Meeting In San Francisco

**Tom Reinarts** put out the plea for volunteers for the 1998 ASHRAE Winter Meeting.

Contact Tom at (415) 621-1199 to volunteer your services (or volunteer someone else that owes you big time).

## He Won The Whole Thing!



Frank Mayhew won the whole thing, two tickets to a San Jose Shark's game with the first winning ticket... and then, the marble draw on second winning ticket. Under the intimidating eye of Barb Dilts, he donated half (\$350) of his new found winnings to ASHRAE Research. Oh well, easy come, easy go...

### Coming in May!

### Golden Gate Technical Seminar Using Measurement and Verification to Troubleshoot HVAC Systems.

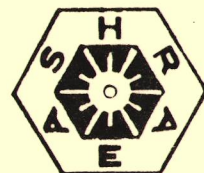
Make plans now to attend the Golden Gate Chapter's Annual Technical Seminar. This year's seminar, a 1/2 day afternoon session, will give you tools you can use to assist you when troubleshooting balky HVAC equipment. The seminar will be held at the PG&E Energy Center and will feature the most knowledgeable people in our industry. Look for the Seminar booth at the Product Show! We'll see you there!

 **ASHRAE**   
Honor Roll

Carl H. Jordan Consulting Mechanical Engineer

646 Colusa Avenue  
Berkeley, California 94707-1518  
Tel: (510) 524-9071  
Fax: (510) 524-9620

*Thank you for your referrals for the past eight years.*



Golden Gate Chapter  
**ASHRAE**  
370 Brannan Street  
San Francisco, CA 94107

FIRST CLASS MAIL

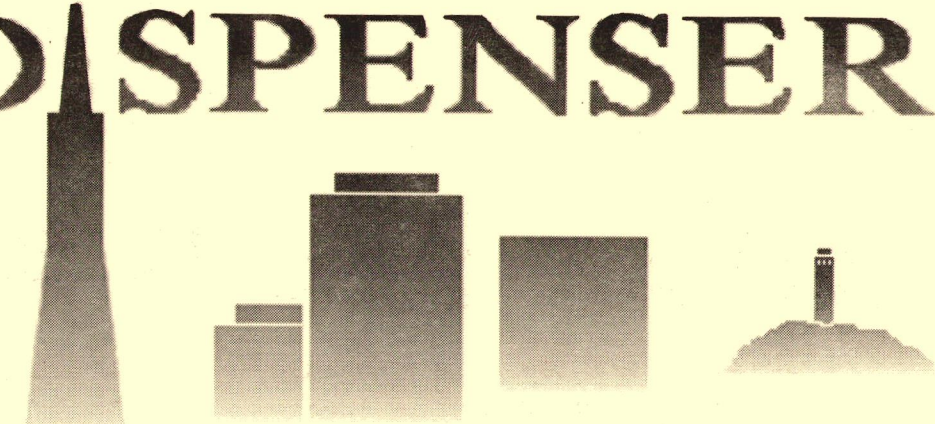


RICHARD A CHARLES  
C & B CONSULTING ENGINEERS  
150 SPEAR ST STE 500  
SAN FRANCISCO, CA 94105-1537

**RECEIVED**  
MAY - 6 1997

CHARLES & BRAUN

# FOG DISPENSER



Golden Gate Chapter



**ASHRAE**

MAY, 1997

VOLUME XXXVI - NUMBER 8

THURSDAY, MAY 8, 1997

## MAY PROGRAM

### Tour of the San Francisco Marriott Central Plant

**Location:** Marriott Hotel, 55 Fourth Street, SF

**Tour:** 5:30 pm Meet in Hotel lobby. Tour will begin there. It is likely we will split into two or more groups.

**Dinner:** 6:45 pm Chevy's restaurant at Fourth and Howard. Hostess will direct you to our dining room.

**Cost:** \$30.00 includes two rounds of beverages.

**To Reserve:** Please *e-mail*, phone or fax your dinner reservation to **Ben Sun** by **Monday, May 5<sup>th</sup>**. A fax form is enclosed for your convenience, however Ben would appreciate you using e-mail.

**Phone:** (415) 398-3833, ext. 234

**Fax:** (415) 433-5311

**e-mail:** [bpsun@sf.fk.com](mailto:bpsun@sf.fk.com)

Join us on this year's field trip as we tour one of San Francisco's most technically advanced Central Plants. The San Francisco Marriott is San Francisco's 2<sup>nd</sup> largest hotel with 1500 guest rooms and over 1.5 million square feet of conditioned space.

The hotel's heating and cooling needs are served by a state of the art Central Plant that includes over 1000 tons of chiller capacity, 2 gas fired boilers, 43 Air Handlers and 1600 ton-hours of ice storage. All of the pumping systems feature Primary/Secondary loops and VFD's on every pump!

The hotel is also a test bed for PG&E's real time pricing electrical rate. This means that the Marriott pays a different price for electricity each hour of the day. Helping the Marriott to adjust to these price changes is a brand new Building Automation System which will also be part of the tour.

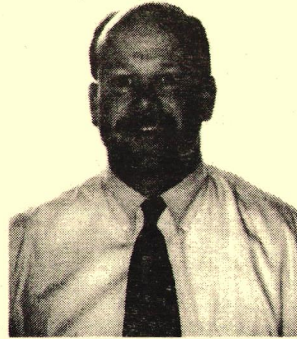
The tour should last about 45 minutes and should prove to be very interesting. We look forward to seeing you there.

Park at the parking lot next to Chevy's, across from the PG&E Energy Center.

### WHAT SOMEONE ONCE SAID

*Ideas are a dime a dozen. People who put them into action are priceless.*

**PRESIDENT'S MESSAGE**



If you missed the April meeting, you really lost out on a great gathering. In addition to the fine Products and Services Show (thank you Bob Levi and participants), we hosted this year's Bay Area Science Fair Award winners and their parents. Every year we have a great time listening to great presentations by some of the area's brightest young minds. These kids give very simple concepts a real run for the money. Thanks to PG&E for their continued support and sponsorship of this event.

**It's official!** I am proud to say we have an official Section of the Golden Gate Chapter located in the Redwood Empire. If you are located in the North Bay and find it difficult to make our regular Chapter meetings, I suggest you get hooked up with this group. The first meetings have been well attended and I suspect this group will continue to grow. Contact Frank Mayhew or Mike Scofield for details.

**RESEARCH! RESEARCH! RESEARCH!** We've done a great job so far, but we're not there yet. As Barbara Dilts said last month, with just a few more large donations from some key suppliers and manufacturers (you know who you are) we can hit our goal of \$25,000. This challenge can become a reality if everyone participates even with a small donation. So contact Barbara @ (415) 973-2030 and do your share.

**Don't Forget!!** Our gathering for this month is the Field Trip at the San Francisco Marriott Hotel Tour and will be followed by a very informal meeting afterwards which will take place at a restaurant to be named later (Chevy's??). Please show up at the Marriott on time so that we can get everyone through this most exciting tour.

Our last meeting of the year will be back at Gabiano's. As is tradition in June, this is Spouse/Significant Other month. Please plan on bringing your better half and join in on the fun. In addition to the end of the year Awards and Changing of the Guard, we have a very interesting speaker who will give us a brief glimpse of how the Internet has and will continue to change our lives at work and at home. Please plan on joining us.

See you at the Marriott!

Dennis Thompson

**ASHRAE RESEARCH - LET'S GO FOR THE GOAL!!**

Donations to ASHRAE Research now total \$20,985!! The ridiculous, impossible, outrageous Society goal for our Chapter is only \$25,000. Hmmm...A number of pledges from the phone solicitation will be paid soon (True?!). Sixty seven members and eighteen companies have contributed so far; over half have been Honor Roll donations or MORE. Frank Mayhew contributed more than half of his Marble Game winnings. Thanks! to all of you.

**Wanted:** About 30 more Member Honor Roll donations (\$100)  
About 200 smaller donations (our Chapter has a LOT of members)  
Contributions from your company. Honor Roll is \$150.

**Make your check payable to ASHRAE Research and mail it to:**

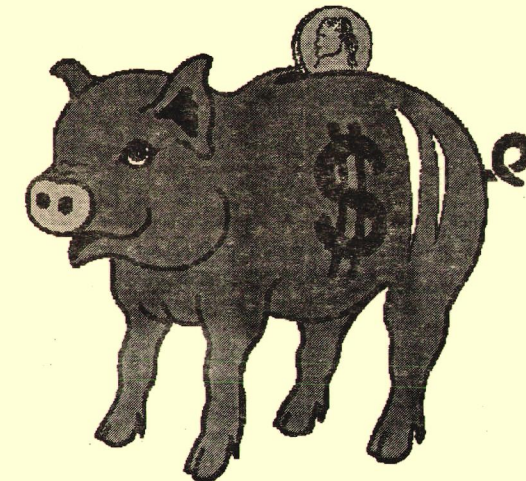
**ASHRAE Research**  
c/o Barbara Dilts  
2425 Acton Street  
Berkeley, CA 94702

**New Individual Honor Roll**

- Peter Gaddy
- Steve Taylor
- Arnold Bleitnitsky
- Joseph Olivier
- Eric Tingloff
- Richard Charles
- Max Sherman
- Glen Leggo
- Frank Mayhew

**New Corporate Honor Roll**

- Pacific Coast Trane
- Clyde Equipment Company
- E.B. Ward Company
- DMB North, Inc
- Mechanical Contractors' Association
- Flack & Kurtz



**Fog Dispenser Deadlines**

The ninth of the month preceding the meeting.  
All the new that fits gets printed.

Mail, Fax, Phone or email News by 9<sup>th</sup> of month preceding meeting to:

**FOG DISPENSER**

Debbie Marshall, *Editor* PACO Pumps  
845 92<sup>nd</sup> Ave, Oakland, CA 94603  
Telephone (510) 639-3200, ext. 232  
Fax (510) 639-3337  
email forthcoming  
Photojournalism Editor: Mike Scofield  
Quality Control: Kinnie Scofield

**Do you know a prospective new member?**

**Contact Membership Chair:**

John Small-----(408) 866-0723  
FAX (408) 866-5899

**Have an address change?  
Contact 1-800-8ASHRAE**

**Not listed in the Roster Properly?  
Not Getting Your Fog Dispenser?**

**Call Virginia Gifford  
(510) 798-7987**

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- Dennis Thompson.....President
- Dan Reiter.....President-Elect
- Ernie French.....Secretary
- Mark Hydeman.....Treasurer

**Board of Governors**

Ben Sun - Kent Lim - Roy Gifford

**ASHRAE GOLDEN GATE CHAPTER 1996-1997 COMMITTEES AND CHAIRPERSONS**

|                                |                                        |                                            |
|--------------------------------|----------------------------------------|--------------------------------------------|
| Attendance.....Richard Charles | Awards.....Barbara Dilts               | Auditing.....Hank Mouw                     |
| BAEC.....Tom Reinarts          | Code.....Roy Gifford                   | CRC Action.....Dan Reiter                  |
| Education.....Jim Brugger      | Energy & Tech.....Joe Olivier          | Fog Dispenser.....Frank Mayhew             |
| Golf.....Mike Rubio            | Government Affairs.....Jon Wintermeyer | Historian.....Hank Mouw                    |
| Honor Roll.....Ellen Pierce    | Marble Game.....Edgar DeGuzman         | Membership/Picnic.....John Small           |
| Product Show.....Bob Levi      | PAOE.....Roy Gifford                   | Program.....Dan Reiter                     |
| Publicity.....Mike Scofield    | Reception.....Wasil Popov              | Refrigeration.....Dave West                |
| Research.....Barbara Dilts     | Roster.....Tim Provo                   | Scholarship/Travel.....Jim Brugger         |
| Seminar.....Joe Olivier        | Tennis.....Rich Leao                   | 1998 Meeting...Dick Charles & Tom Reinarts |

**ASHRAE Golden Gate Meeting Minutes**  
**April 3, 1997**

Meeting was called to order at 7:20 pm by Dennis Thompson

102 Members and guests were present

The Minutes from the March 1997 meeting were approved as printed in the *Fog Dispenser*.

**A.** 18 students were present for student night. Thank you to the following members who sponsored students:

John Small - *Joseph Schauf Company*  
Dennis Thompson - *Trane Company*  
Glenn Friedman - *Engineered Air Systems*  
Jim Brugger - *Keller & Gannon*  
Carl Jordan - *Carl Jordan and Associates*  
Mark Hydeman - *PG&E*  
Dan Reiter - *Winzler & Kelly*

**B.** The chapter welcomed **Professor Duta** visiting from the *Romanian Universitatea Technical Bucuresti*. Several of his former students are ASHRAE members in the Bay Area and brought him to the ASHRAE Meeting.

**C.** Voting for next year's officers will be in the May Fog Dispenser.

**D.** **Edward W Howes**, and **William Felzer** were recognized for **fifty years** of membership in ASHRAE.

**E.** Field trip for May will be held on the 2nd Thursday, May 8th. Meet in the lobby of the Marriott at 5:15 pm.

**F.** The **Eric Thor Andressen Memorial Scholarship** was awarded to *Prerna Jain*. Congratulations.

**G.** **Jim Brugger** was recognized for outstanding contributions to the Golden Gate Chapter. He is credited with helping to establish the new student chapter at San Francisco State University. Nice work Jim.

**H.** Thank you to the people of *PACO Pumps* for taking over the Fog Dispenser from Frank Mayhew.

**I.** CRC is scheduled for May 1st, 2nd and 3rd in Tempe, AZ. Motions are due April 12th.

**J.** Jim Brugger thanked **Dr. Ganja** and **Toto Tan** of San Francisco State University for their work in establishing the new student chapter. In addition, Jim is looking for volunteers to participate in a panel describing careers in HVAC to the local colleges and universities. Cal Poly is looking for a speaker for their April 24th student meeting. Contact Jim if you are interested.

**K.** Barb Dilts thanked the Research Telefund Participants.

**L.** Mark Hydeman presented awards to the science fair winners:

|                 |                    |                                                  |
|-----------------|--------------------|--------------------------------------------------|
| <b>Justyna</b>  | <b>Walukiewicz</b> | Enterise.                                        |
| <b>Ben</b>      | <b>Gerth</b>       | Which Prop is Proper?                            |
| <b>Mauricio</b> | <b>Rivera</b>      | Can organic garbage be an efficient fuel source? |
| <b>Benson</b>   | <b>Gilbert</b>     | The Bensonian Wind Turbine.                      |

**M.** Prizes for the Marble game were Golf Balls donated by Honeywell and Dom Perignon Champagne donated by Clyde Equipment. No one selected the blue marble.

**N.** The program featured the product show participants explaining their unique product feature.

**O.** Meeting was adjourned at 9:05 pm.

Respectfully Submitted,  
Ernie French, Secretary

---

**Don't miss out on the Gala Spring Golf Tournament (see insert), June 20<sup>th</sup> @ Harding Park Golf Course in San Francisco. Limited to 35 foursomes (140 golfers) so make sure you contact Michael Rubio with your reservations now.**

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**CLYDE EQUIPMENT COMPANY, INC.**  
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 ASHRAE  
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# FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVI - NUMBER 9

JUNE, 1997

## Thursday - June 5, 1997

## JUNE PROGRAM

This is the traditional Spouse/Significant Other meeting. Bring your "better" half to enjoy the Changing of the Guard and the Awards Ceremony. If you don't have a "better" half, bring a friend.

*Last meeting of the fiscal year, time to bring in the new officers for 1997-1998 and to say **Thank You** to the people who devoted a tremendous amount of time making the **Golden Gate Chapter's** contribution to **ASHRAE** and the industry a top priority and great success.*

**Location:** Gabbiano's (upstairs)  
 1 Ferry Plaza, San Francisco, CA

**Social Hour:** 5:30 p.m. (downstairs)

**Speaker:** David Hillstrom  
 Infolane Corp.  
 "Using the Internet at Home and at Work, Getting the Most from Your Online Activity"

**Dinner:** 6:30 p.m.

**Cost:** \$ 30.00

**To Reserve:** Please *e-mail*, phone or fax your dinner reservation to *Ben Sun by Monday, June 2<sup>nd</sup>*. A fax form is enclosed for your convenience, however Ben would appreciate you using e-mail.

**Phone:** (415) 398-3833, ext. 234

**Fax:** (415) 433-5311

**e-mail:** [bpsun@sf.fk.com](mailto:bpsun@sf.fk.com)

Gabbiano's is located near Pier 2, behind the Ferry Building (Clock Tower), one block from the Embarcadero BART station.

David Hillstrom from Infolane Corporation will be speaking to us about what the Internet is; e-mail and the World Wide Web. Mr. Hillstrom will show us the personal/family use of the Internet, how we can access up to date news, entertainment calendars, travel information - hotels, airlines, packages, sports event information and dates as well as your favorite hobby. He may also discuss family connections and your own personal home page.

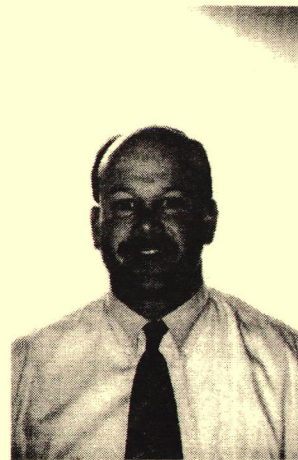
Many businesses use the Internet to connect with other professionals, firms and customers. Bid information is often available for contractors as well as product information.

David will explain how to find what you are looking for and how to enjoy the Net.

**Don't miss this!**

PRESIDENT'S MESSAGE

(last one from Dennis)



What a fantastic year it has been. We started off the year with one key concept and two specific goals for the year. The concept was the Chapters' Contribution to the Industry and how it is the responsibility of all members to perform an annual review of our commitment and support for ASHRAE. We stressed the need to get involved and how the benefits reach far beyond the tangible products such as published standards. I feel it is very important to make involvement in Chapter and Society functions an integral part of everyone's career. It is also critical that we reinvest in our industry to keep it attractive to new engineers and thriving in the midst of great technological advances.

The first goal of Expanded Education Outreach was met on all fronts. Jim Brugger, (Education Committee Chair) is a seasoned member who assembled key activities within our existing student membership. In addition to reactivating our UC Berkeley Student Chapter, we also chartered a new Student Chapter at San Francisco State University. Through Engineers' Week, Science Fair and Scholarship programs, our Student Member numbers are rising and the Chapter has definitely committed to supporting these groups through whatever means possible.

Increased Membership was our second goal. We attacked this from a few different angles and I feel we were very successful. Membership is not only driven by getting everyone to pay annually but attracting new members as well. We marketed chapter activities to groups that are not directly associated with the HVAC & R industry. This meant promoting to Building Owners, Construction Managers and Facilities Planners. While it is difficult to measure our direct success, we opened up some great avenues for future collaboration.

Given the diversity of the Bay Area market, our membership remains a very technically diverse group as well. While not always in attendance at Chapter functions, our members continue to be very active the Society level. This year we had numerous members author and co-author technical papers and serve on Standards Committees. In addition to four 50-year Member Awards, Chapter members received three Distinguished Service Awards, two Best Technical Paper Awards and one Journal Paper Award. This commitment is something for which we can all be proud.

We continue to venture into new areas in an effort to keep our Chapter in step with a rapidly changing world. This summer we will begin formation of a Web Site Committee which has been chartered with getting the Chapter On-Line. This is a very exciting effort and we hope to leverage this media to attract new members and keep our existing ones informed. The vision of the Golden Gate Chapter - Redwood Empire Section came to fruition this year as well. And, of course, the Research Promotion effort (Thank You Barbara!) was successful and we expect to reach our Chapter Goal with a few more key donations.

All in all it has been a very challenging and exciting year. Our 1998 Winter Meeting Committee is very busy coordinating volunteer groups for this grand event in our great city next year. I am sure we will use this event to continue outreach efforts and promote the benefits of ASHRAE involvement.

It would not be fitting to write this final piece without saying what an honor it has been to be President of the Golden Gate Chapter this year. In addition to having the support of great Chapter members, I had the hard work and dedication of the Board of Governors as well. We have had a lot of fun along the way and that is what serves as a constant reminder of why I got involved with ASHRAE in the first place.

Again thank you all for the opportunity and honor of being your President this year.

Respectfully submitted,

Dennis W. Thompson
1996-1997 President, ASHRAE Golden Gate Chapter

Fog Dispenser Deadlines

The ninth of the month preceding the meeting. All the new that fits gets printed.

Mail, Fax, Phone or email News by 9th of month preceding meeting to:

FOG DISPENSER

Debbie Marshall, Editor PACO Pumps
845 92nd Ave, Oakland, CA 94603
Telephone (510) 639-3200, ext. 232
Fax (510) 639-3337
email forthcoming
Photojournalism Editor: Mike Scofield
Quality Control: Kinnie Scofield

Do you know a prospective new member? Contact Membership Chair:

John Small-----(408) 866-0723
FAX (408) 866-5899

Have an address change? Contact 1-800-8ASHRAE

Not listed in the Roster Properly? Not Getting Your Fog Dispenser? Call Virginia Gifford (510) 798-7987

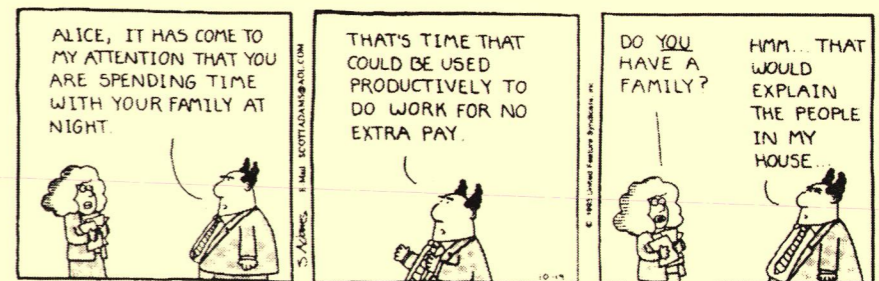
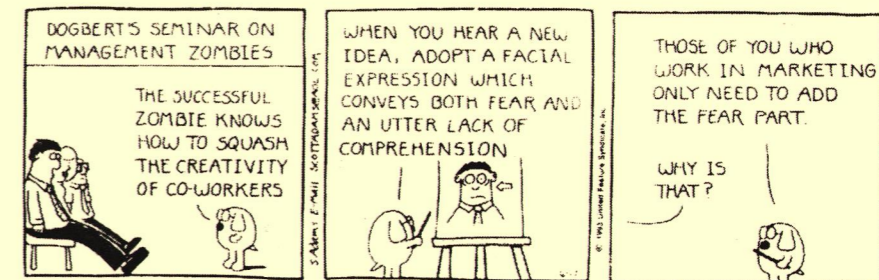
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1996-1997 OFFICERS
Dennis Thompson.....President
Dan Reiter.....President-Elect
Ernie French.....Secretary
Mark Hydeman.....Treasurer
Board of Governors
Ben Sun - Kent Lim - Roy Gifford

ASHRAE GOLDEN GATE CHAPTER 1996-1997 COMMITTEES AND CHAIRPERSONS

Table listing committees and chairpersons: Attendance (Richard Charles), BAEC (Tom Reinarts), Education (Jim Brugger), Golf (Mike Rubio), Honor Roll (Ellen Pierce), Product Show (Bob Levi), Publicity (Mike Scofield), Research (Barbara Dilts), Seminar (Joe Olivier), Awards (Barbara Dilts), Code (Roy Gifford), Energy & Tech (Joe Olivier), Government Affairs (Jon Wintermeyer), Marble Game (Edgar DeGuzman), PAOE (Roy Gifford), Reception (Wasil Popov), Roster (Tim Provo), Tennis (Rich Leao), Auditing (Hank Mouw), CRC Action (Dan Reiter), Fog Dispenser (Frank Mayhew), Historian (Hank Mouw), Membership/Picnic (John Small), Program (Dan Reiter), Refrigeration (Dave West), Scholarship/Travel (Jim Brugger), 1998 Meeting (Dick Charles & Tom Reinarts)

And to end the year with some humor, Mike Scofield thoughtfully provided these tidbits from Fortune Magazine.

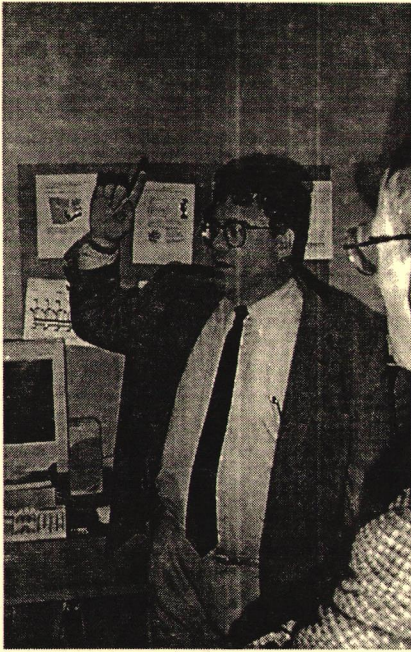


HAVE A GREAT SUMMER!!

## ASHRAE Golden Gate Meeting Minutes May 8, 1997

Since this meeting was a field trip no formal business was conducted.

The congregation met in the lobby of the Marriott Hotel in San Francisco at 5:30 p.m. We were divided into two groups and ferried down to the Central Plant housing the energy center, pumps, chillers, boilers, air handlers and ice storage units.



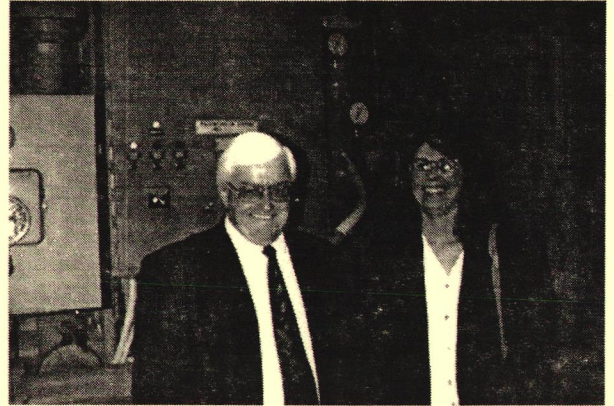
Steve Blanc (PG&E guru) explained the computerized system with multi energy readings and real time billing for economical use. This is one of the area's largest facilities using this innovative technology for controlling energy consumption and

costs. Steve and Doug Chamberlin of Bently Corporation (software development) work together very closely to ensure that all programming and monitoring are accurate.



Bill Kane, Marriott Chief Engineer (far right), explains the set up and power usage.

The tour was enlightening seeing the pump setup, VFD's, chillers and ice storage units, the tremendous power used and the energy saving strategies developed by PG&E.



*Mike Reichlin and Debbie Marshall - PACO Pumps, stand in front of one of the pumping systems supplied by PACO in use at the Marriott.*

Much thanks to Joe Olivier of Enersys Solutions and Steve Blanc of PG&E for arranging this tour. Special thanks should also be extended to the engineering staff of the San Francisco Marriott for their Hospitality.

Over seventy five people attended the field trip and dinner at Chevy's afterward.

**Respectfully Submitted,  
Ernie French, Secretary**



**San Francisco State University Branch Chartering 4/21/97 with Dennis Thompson, Robin James, Lou Pinella and Jim Brugger.**

## NEW MEMBERS

Golden Gate Chapter of ASHRAE welcomes the following new members into its ranks:

| <u>Name</u>      | <u>Company</u>       |
|------------------|----------------------|
| Richard Boe      | Linford Service      |
| Ross Sherrill    | Sherrill Engineering |
| Jeffrey Solberg  | Entek                |
| Fiona Cousins    | Ove Arup & Partners  |
| Robert Accomando | ISS Energy Services  |
| Donald McGreevy  | Student              |

### EMPLOYEE NEEDED

#### Mechanical Engineer

World Savings has an excellent opportunity for a key technical advisor to assist our Corporate Facilities dept., located in Oakland near BART and Lake Merritt.

Responsible for ensuring facilities' mechanical, electrical and environmental systems are designed and maintained properly and in compliance w/ applicable Fed., State and local codes. Need to respond to and develop comprehensive technical solutions to building and system problems, act as in-house advisor in operation and maintenance of building systems and evaluation of site acquisition candidates, analyze maintenance service reports to assess trends and recommend corrective actions, ensure mechanical/electrical designs for new construction, conform to guidelines, monitor contractor performance.

Requires 5+ years facilities engineering experience, preferably in a multi-building environment, solid background in building HVAC, electrical and related building Systems, college degree in mechanical/electrical engineering and excellent communication skills.

World offers a competitive compensation and benefits package. Please send your resume and salary history to:

World Savings  
Dept. 10-SA  
1901 Harrison St.,  
Oakland, CA 94612

## ASHRAE Research

### It's Almost Over! We're Almost There!

The ASHRAE Research campaign is now in its final month. Chapter members and companies have contributed \$22,084 to help Society provide our industry the research on new products, processes and standards that we've come to expect. Our Chapter goal is only \$25,000. We're *SOOOOO* close! Don't hesitate! If you've wanted to contribute, now is the time. If you already have, encourage a friend, acquaintance (bribe someone!). Every dollar brings us closer to the goal.

Make your check payable to ASHRAE Research and mail it to:

**ASHRAE Research**  
c/o Barbara Dilts  
2425 Acton Street  
Berkeley, CA 94702

#### New Individual Honor Roll (\$100)

*Gerald Yaffee*

#### New Corporate Honor Roll (\$150)

*Energys Solutions*



The Redwood Empire Section of the Golden Gate Chapter of ASHRAE had its inaugural meeting, May 14<sup>th</sup> in Rohnert Park. This first meeting was well attended by 85 people. The next meeting is in September for the start of the new fiscal year. It is anticipated the turn out will be greater.



Dean Borges, Director and Regional Chairman, Region X, ASHRAE, presenting Charter to Mike Scofield, President, Redwood Empire Section, Golden Gate ASHRAE.