

FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXIV - NUMBER 1

OCTOBER 2000

Meeting Notice Thursday, October 5, 2000

Place: World Trade Club, Suite 300 at the world famous Ferry Building in San Francisco

Date: Thursday, October 5, 2000

Time:

Pre-Meeting	
Technical Seminar	5:00 p.m.
Social Hour	5:30 p.m.
Dinner	6:30 p.m.
Meeting	7:30 p.m.
Adjournment	8:30 p.m.

Cost: \$35.00 Members and Guests with advance reservations, \$37.00 at the door.

All reservations must be received by John Wintermeyer by email at ASHRAE@atce.com or by fax (see form in this issue) at: (415)788-6040.

Pre-Dinner Technical Seminar 5:00 p.m
Robin James of Belimo will cover some of the basics on sizing control valves. Come to the seminar and find out what is a myth, and what is right for valves sizing. Call Robin at 707-745-5998 for reservations. Refreshments will be available.

October 2000 Guest Speaker

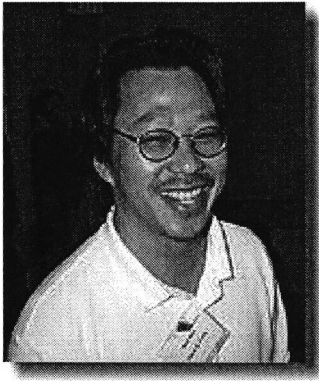
Mike DeNamur

*Director of Business Development
Facility Automation Services
Comfort Systems USA*

ESS Engineering, a division of Comfort Systems USA, is a national leader in energy-efficiency consulting and delivery of comprehensive energy management and building automation solutions. ESS Engineering has received particular recognition for its role in the Philip Burton Federal Building, a 1.4 million square foot, multi-vendor BACnet installation in San Francisco. Mr. DeNamur is responsible for evaluating emerging technologies and leveraging them to provide real value to building management staff. Mike has more than ten years experience in the building automation industry, and prior to joining Comfort Systems, held the title of *Manager of Interoperable Systems* for a major controls manufacturer.

For more than five years Mike has participated in standards-building activities related to adopting both BACnet and LonTalk in the commercial building industry. He is currently a member of the BACnet Manufacturers' Association, and served on the LonMark Interoperability Association Board of Directors through June of this year. Mike frequently speaks on the topic of building systems interoperability, including presentations at ASHRAE, BOMA and IFMA annual meetings.

Mike is a graduate of the University of Minnesota, and enjoys racing sailboats in his spare time.



Golden Gate Chapter President's Message October 2000

How Time Flies!

How time flies! I first joined ASHRAE as a student member at Cal Poly San Luis Obispo and was elected to be the Sergeant at Arms where I was to "keep order" during the student member meetings. That was close to twenty years ago!

ASHRAE has helped me personally in many ways. As a student, I received a scholarship from the Sacramento chapter.

The technical knowledge base that ASHRAE makes available in each of the meetings and technical sessions has been very useful (most of the time) to me in my professional career.

Probably, most importantly to me has been the personal relationships and contacts that have been established through ASHRAE. I especially value the friendships that continue to be made.

Having received the honor of serving as the 2000-2001 chapter president, I would like to return the multitude of benefits I have received and continue to receive back to the ASHRAE members.

As President there are a few goals I would like to accomplish to help the members and the chapter this year:

- To establish an on-line searchable database of the HVAC&R manufacturer's representatives in the Bay Area on the GG ASHRAE web page.
- Increase the educational aspect of ASHRAE by increasing the number of Pre-Dinner technical discussions.
- Create new ways of reaching younger members.
- Get you home earlier by ending all evening meetings by 8:30pm!

I would like to thank Mr. Mark Hydeman, ex-president, for the leadership and support he has given to the Chapter and myself. I am open to other suggestions on helping the GG ASHRAE members so please email me at bpsun@sf.fk.com or call me if you have suggestions for the first year of the Millennium.

Respectfully submitted

Benjamin Sun, Chapter President

2000 Committee Chairs

Title	Name	Company	Phone	Email
Region X DRC	Kent Peterson	P2S Engineering, Inc.	562-497-2999	kwp@p2seng.com
President	Benjamin Sun	Flack & Kurtz	415-398-3833	bpsun@sf.fk.com
President-Elect/CRC Delegate/Chapter Programs	Joseph Olivier	Syserco	510-498-1171	jolivier@syserco.com
Treasurer	Robert Levi	Edward B Ward and Co	650-872-5210	bob.levi@ebward.com
Secretary/CRC Alternate	Edgardo De Guzman	Acco Inc	650-594-0182	edeguzman@accoair.com
Board of Governors/PAOE Committee Chair (Past President)	Mark Hydeman	Taylor Engineering	510-749-9135	mhydeman@taylor-engineering.com
Board of Governors: 2 nd Year board Member	Jon Wintermeyer	Alfa Tech Consulting	415-788-6000	Jon_wintermeyer@atce.com
Board of Governors: 1 st Year Board Member	Robin James	Belimo Aircontrols	707-745-5998	rjames@belimo.com
Membership Promotion Committee Chair	Jeffrey Ditman	Glumac International	415-398-7667	j.ditman@glumac-sf.com
Student Activities Committee Chair	Glenn Friedman	Taylor Engineering	510-749-9135	gfriedman@taylor-engineering.com
Student Activities Vice Chair	Donald Nurisso	Alfa-Tech Consulting Engineers	415-788-6000	Don_nurisso@atce.com
Historian	Dennis Thompson	Pacific Coast Trane	408-481-3643	dwthompson@trane.com
Refrigeration Committee Chair	Reinhard Seidl	ACCO	650-631-5988	seidl@flash.net
Research Promotion/ Honor Roll/Product Show Committee Chair	Cory Palmer	Norman Wright Equipment Corp	415-467-7600	cpalmer@norman-wright.com
Technical, Energy & Government Activities Committee Chair	Gary Margadant	Consulting Engineer		gasm@napanet.net
Newsletter Editor	Rachel Bannon	UC Berkeley – Student	510-981-0671	rbannon@uclink4.berkeley.edu
Honors and Awards Chair	Gail Brager	University of California	510-642-1696	gbrager@socrates.berkeley.edu
Website Chair	Robert Marcial	University of California CEDR	510-849-9057	rmarcial@uclink4.berkeley.edu
Database Chair	Allan Daly	Ove Arup & Partners California	415-957-9445	allan.daly@arup.com
Codes Committee Chair	Dick Glumac	Glumac & Associates	415-398-7667	d.glumac@glumac-sf.com
Attendance Committee Chair	Richard Charles	C & B Consulting Engineers	415-442-0110	rac@cbengineers.com
Auditing Committee Chair	Daniel Reiter	Winzler & Kelley	707-523-1010	danreiter@w_and_k.com
Tennis Committee Chair	Jason Daters	Siemens Bldg Tech	510-783-6000	Jason.daters@us.landisstaefa.com

BAEC Committee Chair	Thomas Reinarts	Keller & Gannon	415-621-1199	tom.reinarts@keller-gannon.com
Golf Committee Chair	Robert Polizzi	California Hydronics Corp	510-293-1993	
Marbles Game Committee Chair	Cindy Regnier	C&B Consulting Engineers	415-442-0110	cr@cbengineers.com
Publicity Committee Chair	Mike Scofield	Conservation Mechanical Systems	707-829-2080	cmscofield@aol.com
Reception Committee Chair (Membership Vice Chair)	Chris Papadimos	Illingworth & Rodkin Inc	415-459-6448	cpapadimos@aol.com
Redwood Empire Section President	J Nelson	Hewlett Packard SAD	707-794-3079	
Seminar Committee Chair	Laurens Vaneveld	Taylor Engineering	510-749-9135	lvaneveld@taylor-engineering.com
Weather Data Committee	Nenad Saric	ATI Engineering Services	925-648-8800	nsaric@atiengineering.com

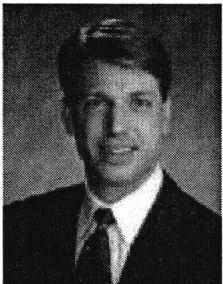
Have you moved?

Members, please help us keep track of you. If you have recently changed your address, phone, fax or email, please make sure that Society's database is up to date. Call 1-800-5-ASHRAE or change information on Society's website at <http://www.ashrae.org/>. If you want to make changes on-line follow these steps:

- 1) Click on "Membership Records" under the "Members-Only Section" (note you will need your membership # and pin which are on your membership card).
- 2) Click on "Address Change"
- 3) Enter your Name, Membership#, E-mail Address and any changed contact information
- 4) Click on submit

Upcoming Programs:

Month	Program
October 5, 2000	Oct. Meeting, World Trade Center . Speaker: Mike Denamur



Join us for our first program of the year as we tackle the tough issue of open protocols in Building Automation systems. Mike Denamur will present an update to the opening program he gave 4 years ago. Much progress has been made, but there is still much more to be done. Come here about the latest trends in the BAS industry.

Mike Denamur, formerly of Trane Company, is now with Comfort Systems USA, the nations largest supplier of Building Automation Services. He has been intimately involved with innovative integration projects all over the country. With over 20 years experience in automation, he is one of the leading speakers on the subject.

PACIFIC ENERGY CENTER - October and early November 2000 classes

Location and transportation: The PEC is located at 851 Howard Street, San Francisco between 4th and 5th Streets, just two blocks from the Powell Street Muni and BART station and just one block from the huge parking garage at 5th and Mission Streets.

All classes are FREE, but to guarantee a space, please register by calling 415-973-7268 or visiting our Web site (www.pge.com/pec) to register online.

We provide beverages at all classes and allow students time to go out for lunch during day-long classes.

Tuesday, October 3 Basic Electricity

9:00 a.m. to 4:30 p.m.

Get an overview of electric design for buildings, including an in-class exercise on the design of the electrical system for a small commercial facility. Instructor J. Lopez of Lopez Engineering in San Diego has taught electrical engineering at a number of colleges and training centers.

Wednesday, October 4 Photovoltaic (PV) System Design

9:00 a.m. to 4:30 p.m.

We will introduce and evaluate tools to maximize the performance of PV systems. Topics encompass simple hand calculations, physical modeling, and complex computer simulations using tools such as PV Design Pro, PV-Designer, RETScreen, Meteororm, Energy10, Heliodon, and SolarPathfinder.

Wednesday, October 11 Building Materials Showcase

3:00 p.m. to 9:00 p.m. (Refreshments at various times during the event) Visit the PEC for a showcase of environmentally responsible building products, including renewable and/or recycled content and low-toxin materials. Co-sponsored by ADPSR.

Friday, October 13 Design Opportunities in Building-Integrated Photovoltaics (PV)

9:00 a.m. to 4:00 p.m.

Using examples from the U.S., Europe, and Japan, Steven Strong of Solar Design Associates will discuss how to design buildings that incorporate aesthetic PV panels that serve as an integral part of exterior cladding and roofing systems.

Thursday, October 17 Top 10 Performance Issues In Commissioning: How to Diagnose and Correct Them

9:00 a.m. to 4:30 p.m.

This workshop, intended for facility operators, engineers, and commissioning practitioners, applies to both existing equipment and new installations. We will present results from numerous commissioning projects. Class includes a hands-on breakout session examining Pacific Energy Center equipment in operation.

Thursday, October 26 eVALUator, a Windows-based Life Cycle Cost (LCC) Analysis Tool

9:00 a.m. to 4:00 p.m.

Discover the advantages of using LCC to analyze the economic impacts of various design decisions. Basic LCC principles and terminology will be covered.

Friday, October 27 eQUEST, the Quick Energy Simulation Tool

9:00 a.m. to 4:00 p.m.

Learn, hands-on, how to use eQUEST to model commercial building energy use. Automatically evaluate up to ten design options and view the results side-by-side in a graphical format.

Monday, October 30 Desktop Radiance

9:00 a.m. to 4:30 p.m.

Lighting design software Desktop Radiance, a plug-in for AutoCAD®, enables designers to create highly accurate renderings of interior spaces. This hands-on course will show participants how to model a space. Free software included. Proficiency in AutoCAD 14 is required.

Tuesday, November 7 Data Collection and the Universal Translator

9:00 a.m. to 4:30 p.m.

The Universal Translator(tm) (UT) software grew to meet needs arising from the PEC's Tool Lending program. UT facilitates data management and analysis. Get hands-on experience processing data from a variety of sources such as data loggers and computers.

EMPLOYMENT OPPORTUNITIES

Taylor Engineering is looking for HVAC design engineers to join us as we expand. We specialize in innovative large building HVAC and control system design, energy and indoor air quality analysis, and system commissioning. Current projects include the new GAP Headquarters building in San Francisco, GAP San Bruno Phase II, Electronic Arts II in Redwood City, Palm Inc. Campus in San Jose and the Title-24 Energy Standard for 2005. Prospective candidates must have a degree in mechanical engineering or a related degree, a thorough understanding of thermodynamics and fluid flow fundamentals and excellent presentation and writing skills. Candidates must be PC literate and have a working knowledge of Windows, Word, Excel, and AutoCAD. Design/build or field experience is also desirable. Excellent work environment in Alameda. High salaries for top performers.

Send resume to: Glenn Friedman, Taylor Engineering, 1305 Marina Village Parkway, Alameda, CA

Tel: 94501-1028. Fax: 510-749-9136

E-mail: gfriedman@taylor-engineering.com

OUR SUCCESS IS BUILT ON YOUR TALENT.....

Guttman & Blaevoet is a well established SF Consulting engineer firm serving premier architects & Building Owners. We are seeking a project manager with at least 5 years of HVAC consulting experience. Successful candidates will have a strong academic background, be progressing toward a P.E. license, AUTOCAD proficient, and be highly motivated.

E-mail to restacio@gb-eng.com

ASHRAE GOLDEN GATE CHAPTER

Meeting Minutes, July 12 2000

Place: PG&E Center

Attendees:

Ben Sun	President
Joe Olivier	President Elect
Edgar De Guzman	Secretary
Bob Levi	Treasurer
Mark Hydeman	Past President
Jon Wintermeyer	2 nd Year Board
Robin James	1 st Year Board

Items Discussed:

1. All new Member of the Board shall have their electronic photo taken and write a short biography. This biography is to be e-mailed to Robert Marshall for update on website.
2. Mark Hydeman suggested nominating a local member of the Society for "Fellow" or achievement awards.
3. PAOE points must be sent to Society by all committee chairpersons in order for local chapter to get the points.
4. Meeting notes must be posted at the website and copy must be forwarded to Antony Ginameti (Editor of Insite).
5. Liaison officers must remind their committee's chairperson about their tasks.
6. Cindy Reigner is the Marble chairperson/. Ed De Guzman is to find a co-chair ASAP.
7. Joe Olivier said that we have a new Tennis Chairperson.
8. Joe Olivier presented next year's ASHREE meeting schedule and program.

Action Items:

1. Ed De Guzman to ask R. Marshall if we can have a server to list all members (paying or not)
2. Ed De Guzman to remind Allan Daly to start weeding out electronic members and non paying members of the list of FOG dispenser mailing list.
3. M. Hydeman to email the PAOE report to R. Marshall.
4. Joe Olivier to call Dan Noon regarding the tennis trophy and inform Flemming Anderson about it.
5. Robin James to call R. Seidl of ACCO and remind him that he will be the chairperson of TEGA since he is already handling the refrigeration committee.
6. All board members must start finding co-chair to all committees.
7. Edgar, Joe and Mark must return yellow folder to B. Sun.
8. Board to determine the price of voucher and tickets on August.

Motion:

A motion is moved by Robin James to award Charlene Sturm for job well done for the Golf Tournament. A lady's watch was suggested. The motion is seconded by Joe Olivier and passed unanimously.

ASHRAE GOLDEN GATE CHAPTER

Meeting Minutes, September 13 2000

Place: PG&E Center

Attendees:	Ben Sun	President
	Joe Olivier	President Elect
	Edgar De Guzman	Secretary
	Bob Levi	Treasurer
	Jon Wintermeyer	2 nd Year Board
	Cory Palmer	Research Chairperson

Action Items:

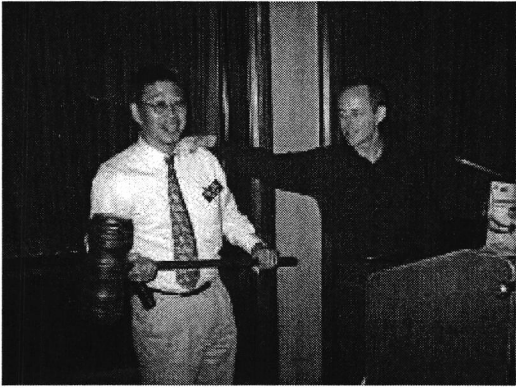
1. Edgar De Guzman to forward copies of all meeting minutes to Rachel Bannon and Robert Marcial for Fog Dispenser and Website Publication.
2. Joe Olivier to call Mike Marshall of ASPE regarding the "Product Show" money they owe ASHRAE.
3. Bob Levi to call Wells Fargo Bank regarding the security account and make recommendations on how to improve the investment on this account.
4. Bob Levi to prepare the budget for the next ASHRAE meeting.
5. Mark Hydeman to make a report on how different committees could get "PAOE" points.
6. Board members to transfer yellow folders to the website and write-up synopsis about each committee.
7. Robin James to talk to Glenn Friedman about the scholarship travel plan.
8. Joe Olivier and Bob Levi to send 99-00 taxes to G.G. ASHRAE Accountant.
9. Ben Sun to call IRS to follow-up previous tax problems.
10. Edgar De Guzman to order new stationaries with correct web-site address: "G.G. ASHRAE.ORG".
11. Mark Hydeman to bring a copy of the 2nd page stationary.
12. Mark Hydeman to follow-up the electronic member registration with Allan Daly.

Motions:

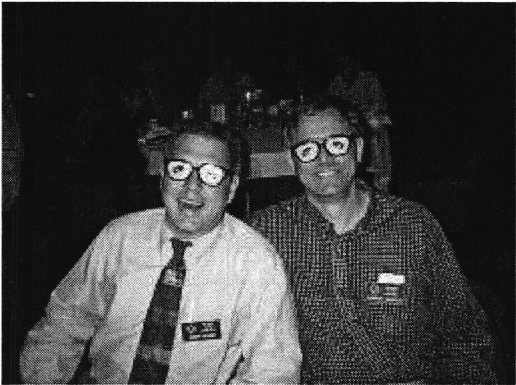
1. July 12, 2000
A motion is made by Robin James to award Charlene Sturm and Debbie Marshall for job well done.
An ASHRAE lady watch suggested.
2. August 9, 2000
A motion is made by Joe Olivier to allocate \$2500 to Robin James and authorize her to negotiate with "Horn Blower Yacht" for the coming CRC event.
3. September 13, 2000
A motion is made by Mark Hydeman to allocate \$500 for research chairperson food and lodging expenses for R.P. workshop.

All motions were approved unanimously.

ASHRAE Golden Gate Chapter



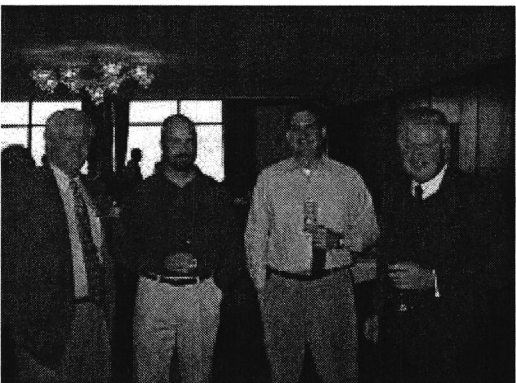
The passing of the 'gavil and chapter charter'.



Joe Olivier and Luke Vaneveld

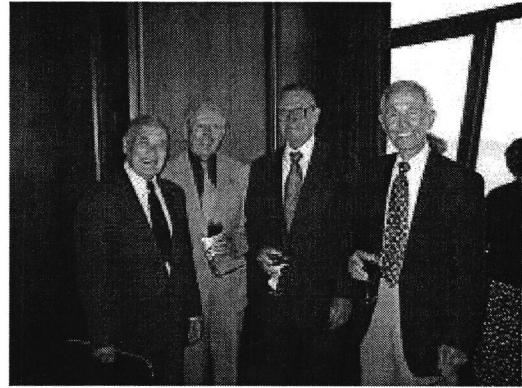


Wilma Jordan and Suzanne Metzger

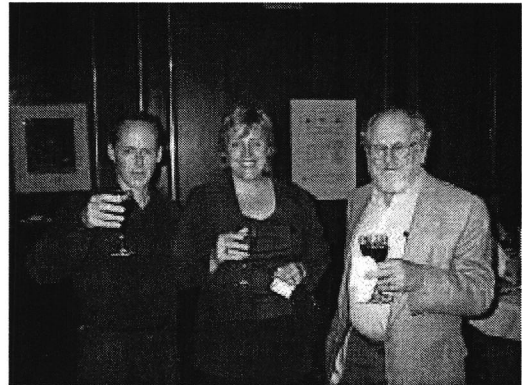


Where is that bartender?

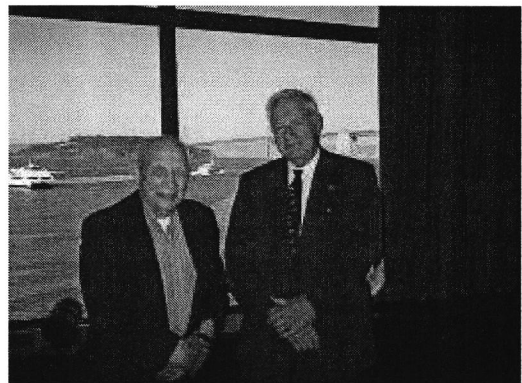
Gallery 2000 captions - Mike Scofield



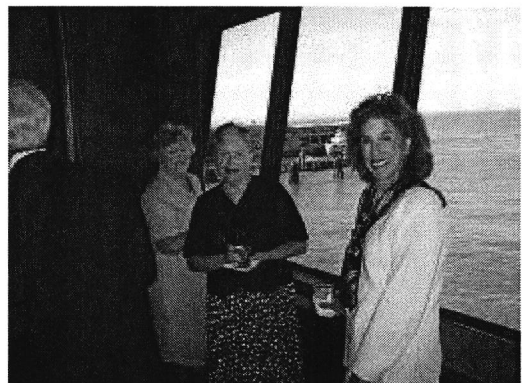
We'd like to discuss your portfolio....



Mark Hydeman, Robin James and Karl Guttman



Ross Sherrill and Gil Avery



Let the good times roll.....

1999/2000 ASHRAE RESEARCH ANNUAL REPORT, GOLDEN GATE CHAPTER

Congratulations and thank you to each of the individuals and firms listed below who helped the Golden Gate Chapter collect \$29,611.40 in 1999/2000 for Research!

INVESTORS OF MORE THAN \$1,000

Flack + Kurtz Consulting Engineers
Golden Gate ASHRAE Chapter
SMACNA – Greater Bay Area
Norman Wright Mechanical Equipment Corp.
Pacific Gas and Electric Company

INVESTORS OF \$501 to \$1,000

C & B Consulting Engineers
Thomas A. Gilbertson
Edith Quinn

INVESTORS OF \$251 to \$500

R.F. MacDonald Company	Mark Hydeman	Richard Charles
Flow Products Incorporated	Frank Mayhew	Carrier Corporation
Robin James	Dennis Thompson	Paragon Controls Inc.

INVESTORS OF \$151 to \$250

Kent M. Lim & Company, Inc.
Joe Critchfield
Tempco Equipment Company
Dart Rineford
Bob Levi
Pacific Coast Trane Service
Gerald Yaffe

INVESTORS OF \$101 to \$150

Kendrick Mouw	Chen Meng-Hsiu
Jack Palmer	The Brose Company
Laws & Associates	Taylor Engineering
Ronald Eng	James MacDonald
York International Corp.	John Ward

INVESTORS OF \$100

Bernard Beckius	Jim Nemechek
Kyle Blocker	John O'Brien
Robert De Chene	Joe Olivier
Edgar DeGuzman	Cory Palmer
Barbara Dilts	David Rogers
Herb Duncan	Nenad Saric
Thomas Finlayson	Mike Scofield
Ernie French	Eric Slaasted
Dick Friedman	Ben Sun
Carl Jordan	Dennis Thompson

John Kniveton
Kent Lim
Lane Loyko
Reginald Monteyne

Robert Voelz
Ron Yaffe
Arthur Zigas
Vann Engineering Corp.

INVESTORS OF \$50 to \$99

Richard Yates
John Gajan

Richard Paillon
Linford Service Company

INVESTORS OF \$10 to \$49

Walter Schneider
Edward Arens
Ross Sherrill
Ronald Jang
Robert Roos
Daniel Hoffman

Fernando Palacios
Peter Hartdegen
James Lutz
David Lintott
Robert Davis

Now we're off and running for 2000/2001! Checks payable to ASHRAE Research can be sent to:

Cory Palmer
c/o Norman Wright Mechanical Equipment Corp.
99A South Hill Drive
Brisbane, CA 94005
phone: 415.467.7600 ext. 111
e-mail: cpalmer@norman-wright.com

**ASHRAE GOLDEN GATE CHAPTER
DINNER RESERVATION FAX**

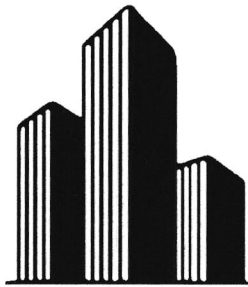
For Thursday October 5th, 2000

Email: John Wintermeyer ASHRAE@atce.com *preferred method of communication!!!!*
FAX: (415) 788-6040 *Please cancel your reservation if you cannot attend the meeting.*
Cancellations must be received by the Tuesday prior to the meeting.

FROM: _____

COMPANY: _____ Phone: _____

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



NORMAN WRIGHT MECHANICAL EQUIPMENT CORPORATION

san francisco ♦ santa clara ♦ santa rosa

Norman Wright Corporation Proudly Supports ASHRAE Research.

FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXIX - NUMBER 2

NOVEMBER 2000

Meeting Notice

- Date:** Thursday, November 2, 2000
- Place:** Pacific Energy Center
851 Howard Street
(Between 4th & 5th Streets)
- Time:** Pre-Meeting
Technical Seminar 5:00 p.m.
Social Hour 5:30 p.m.
Dinner 6:30 p.m.
Meeting 7:30 p.m.
Adjournment 8:30 p.m.
- Cost:** \$35.00 Members and Guests with advance reservations, \$37.00 at the door.

All reservations must be received by John Wintermeyer by email at ASHRAE@atce.com or by fax (see form in this issue) to: (415)788-6040 by Monday, October 30th.

Pre-Dinner Technical Seminar 5:00 p.m:
Liquid Overfeed and Low Temperature Supply Air Systems

Our own Mike Scofield will present these energy saving concepts taken from his recently published article in Heating/Piping/Air Conditioning Magazine. See the article inside for more details. Call Mike at 707-829-2080 for reservations. Refreshments will be provided.

November Program: Electric Vehicles

Speaker: Kent S. Harris, P.E.,
Electric Transportation Technology
Manager
Pacific Gas & Electric Company

Just in time for higher gas prices at the pump comes our November program on electric vehicles! PG&E's Electric Car Guru will present to the chapter the latest concepts in advanced transportation technology, the benefits of electric vehicles, and how to get an electric vehicle!

On display for our meeting will be several of PG&E's electric vehicles so you can see for yourself that electric vehicles are a viable transportation option.

Kent Harris's position oversees PG&E's active investigation into electric transportation, its use of electric vehicles and its interactions with EV-related government agencies, environmental organizations, and industry coalitions. Harris joined PG&E's clean air transportation program in 1993 and before that was a Management Consultant for the Company beginning in 1984. Prior to coming to PG&E, Harris held consulting positions with Procter & Gamble's international manufacturing organization (Cincinnati). He is a registered professional engineer (California and Ohio) and holds Bachelor's and Master's degrees in Industrial and Human Factors Engineering from Georgia Tech.

November is also Student night! We are looking for sponsors to cover the meeting costs for student attendees. Notify John Wintermeyer on your reservation if you are willing to sponsor a student.

Golden Gate Chapter President's Message

November 2000



Where are you Hugh?

Where are you Hugh?

Hugh Tuck, You asked for a ride to 8th and Harrison after the October meeting and as the newly elected President I offered you a ride. I could not find you after the meeting!

For those of you who missed the October meeting, this occurred after I had spoken from the podium saying that the Golden Gate Chapter ASHRAE is here to help and serve you. At that point Hugh asked for the ride. It may have seemed funny at the time, but I was serious about ASHRAE being here to help. After all, the entire board members of the Chapter are here because it was you who decided not vote us out. Okay, I understand some of you wanted to toss us out but forgot to send in the ballot because of you were too busy with the new economy!

The volunteer board members are here to serve you with our goal of “advancing the arts and sciences of heating, ventilation, air conditioning and refrigeration”. We try to achieve this by providing continuing education at the pre-dinner technical seminars, the yearly one day technical seminar and the monthly meetings.

While reviewing the Chapter Operation manual I noticed the following quote: “the President is also charged with the responsibility of seeing that the enthusiasm among chapter members is constantly stimulated.” So, in addition to helping you and ending the meeting at 8:30 PM, I will be there every month behind the podium to stimulate you and make sure the members’ enthusiasm does not ebb from its level at the October meeting.

P.S. November is Student Night so come and sponsor a student.
Hugh - come to the meeting at the PG&E Energy Center and we will give you a ride!

At Your Service,

Ben Sun
Chapter President

November Pre Meeting Technical Seminar: ***“Liquid Overfeed and Low Temperature Supply Air Systems”***

Presented by:
Mike Scofield, Conservation Mechanical Systems

Liquid overfeed direct refrigeration systems may be used to develop 40 degree supply air for variable air volume applications. New high induction diffusers are now available to introduce this super cold air directly into occupied areas using pinch down type VAV terminals. This concept offers the owner reduced energy costs and HVAC system installed costs as well as the return of rentable floor space.

Mike Scofield, President of Conservation Mechanical Systems, will present this topic taken from his feature article: “Joining VAV and Direct Refrigeration” from the September 1989 issue of *Heating/Piping/Air Conditioning Magazine*. Mike is the past President of the San Jose (1968-69) and Denver ASHRAE chapters and has recently served as President of the new Redwood Empire section of the Golden Gate ASHRAE chapter. In June 1988, he received the ASHRAE Journal Best Paper Award.

SECRETARY’S REPORT NOVEMBER 2000

Wow, what a great start. First Robin James of Belimo (also a board member), gave a great mini seminar about valve sizing. Then we heard from Mike DeNamur of Comfort Systems U.S.A, who has helped us get through the issue of open protocols in Building Automation systems. While Mike was giving his presentation, Ross Sherrill let out a paroxysm of glee when the Giants made a 3 run home run at the bottom of the 9th inning, which led to a tie game (but unfortunately the Giant’s lost).

EMPLOYMENT OPPORTUNITIES

Taylor Engineering is looking for HVAC design engineers to join us as we expand. We specialize in innovative large building HVAC and control system design, energy and indoor air quality analysis, and system commissioning. Current projects include the new GAP Headquarters building in San Francisco, GAP San Bruno Phase II, Electronic Arts II in Redwood City, Palm Inc. Campus in San Jose and the Title-24 Energy Standard for 2005. Prospective candidates must have a degree in mechanical engineering or a related degree, a thorough understanding of thermodynamics and fluid flow fundamentals and excellent presentation and writing skills. Candidates must be PC literate and have a working knowledge of Windows, Word, Excel, and AutoCAD. Design/build or field experience is also desirable. Excellent work environment in Alameda. High salaries for top performers.

Send resume to: Glenn Friedman, Taylor Engineering, 1305 Marina Village Parkway, Alameda, CA

Tel: (510) 749-9135. Fax: 510-749-9136

E-mail: gfriedman@taylor-engineering.com

PACIFIC ENERGY CENTER

Fall 2000 classes

For a current listing of classes visit the PEC's website at www.pge.com/pec. All classes are FREE, but to guarantee a space, please register by calling 415-973-7268 or visiting our Web site (www.pge.com/pec) to register online.

Location and transportation: The PEC is located at 851 Howard Street, San Francisco between 4th and 5th Streets, just two blocks from the Powell Street Muni and BART station and just one block from the huge parking garage at 5th and Mission Streets.

We provide beverages at all classes and allow students time to go out for lunch during day-long classes.

Wednesday, November 1

(note: this class was originally scheduled during September)

9:00 a.m. to 3:30 p.m.

Title 24: Changes in Mechanical and HVAC Standards

This in-depth workshop covers the HVAC requirements for the 1998 Title 24 Standard using two buildings as detailed examples. Topics include structure and scope of the Standard, application to existing buildings, compliance forms, mechanical system requirements, and tips for design to meet or exceed the Standard requirements. Attendees should have a working knowledge of mechanical system design. Instructor: Mark Hydeman, Taylor Engineering.

Tuesday, November 7

9:00 a.m. to 4:30 p.m.

Data Collection and the Universal Translator

The Universal Translator(tm) (UT) software grew to meet needs arising from the PEC's Tool Lending program. UT facilitates data management and analysis. Get hands-on experience processing data from a variety of sources such as data loggers and computers.

Wednesday, November 8

1:00 p.m. to 4:00 p.m.

SkyCalc and Skylighting

Determining light levels and energy impacts from skylights is easy with SkyCalc, the Excel-based software package. This hands-on class will be taught by Jon McHugh of Heschong Mahone Group and includes a free copy of the software.

Wednesday, November 15

9:00 a.m. to 4:30 p.m.

CoolTools(tm) Design Guide Seminar

Professional engineers Mark Hydeman and Steve Taylor present a unique and innovative process for designing life-cycle-cost-optimized chilled water plants. This seminar is based on the CoolTools(tm) Chilled Water Plant Design Guide and uses examples to illustrate the design process. Topics include optimizing chiller and tower selections, life-cycle cost procurement procedures, selection and application of pumping arrangements, flow rates and pipe sizes, control sequences, and commissioning. Attendees will receive copies of the CoolTools(tm) Chilled Water Plant Design Guide.

Tuesday, November 28

9:00 a.m. to 4:30 p.m.

Integrated Building Design

Discover how choices regarding external shading, building skin, daylighting, electric lighting, glazing, structural systems, and HVAC systems can be integrated in your design to create comfortable and energy-efficient indoor environments.

Wednesday, November 29

9:00 a.m. to 3:30 p.m.

Title 24: Changes in Lighting Standards

Learn how the revised Title 24 energy standards that took effect on July 1, 1999, affect the work of lighting professionals. Class developed and taught by the Illuminating Engineering Society, Golden Gate Section.

Monday, December 4

10:00 a.m. - 12:00 noon

Designing an Energy-Efficient Kitchen

Specifying equipment performance during the design of a kitchen results in increased productivity and long term energy savings. Learn how to use existing performance data to hold a spec and qualify equals and how this will increase the bottom line.

Wednesday, December 6

9:00 a.m. to 4:30 p.m.

Direct Digital Controls

Now that BACnet and LONWorks have brought interoperability and better networking options to DDC systems, how do facility managers take advantage of the new technologies? This full-day seminar covers the capabilities of these technologies and presents case studies for their application. Find out how to update existing DDC systems and add new features without replacing the old system.

Looking for the Chapter's Committee Chairs? Visit the web site: ggashrae.org

Have you moved?

Members, please help us keep track of you. If you have recently changed your address, phone, fax or email, please make sure that Society's database is up to date. Call 1-800-5-ASHRAE or change information on Society's website at <http://www.ashrae.org/>. If you want to make changes on-line follow these steps:

1. Click on "Membership Records" under the "Members-Only Section" (note you will need your membership # and pin which are on your membership card).
2. Click on "Address Change"
3. Enter your Name, Membership#, E-mail Address and any changed contact information
4. Click on submit

ASHRAE RESEARCH

YEAR-TO-DATE INVESTOR LIST

Our year 2000 ASHRAE Research is off to a great start! The following corporate and individual Honor Roll investments have been received:

Corporate Honor Roll Investors (\$150.00 or more)

<i>ATI Engineering Services</i>
<i>Flack + Kurtz, Inc.</i>
<i>JYA Consulting Engineers</i>
<i>Laws & Associates</i>
<i>Marelich Mechanical</i>
<i>Norman Wright Mechanical Equipment Corp</i>
R. F. MacDonald Company

Individual Honor Roll Investors (\$100.00 or more)

<i>Wasil Popow</i>	<i>Cory Palmer</i>
Carl Jordan	<i>Edward Arens</i>
<i>Joe Olivier</i>	<i>Edgar DeGuzman</i>
<i>John Roth</i>	<i>Bob Levi</i>
<i>John Wintermeyer</i>	<i>Ben Sun</i>
<i>Kent Lim</i>	<i>Bernard Beckius</i>
<i>Lane Loyko</i>	<i>Shlomo Rosenfeld</i>
<i>Mark Hydeman</i>	<i>Robert Voelz</i>
<i>Max Sherman</i>	<i>Lewis Brooks</i>
<i>Robin James</i>	<i>Dennis Thompson</i>

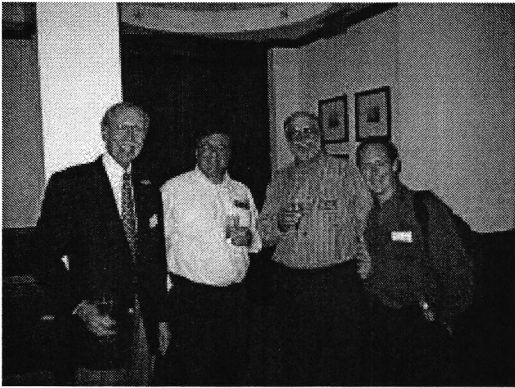
Our chapter has completed the requirements of the Full Circle Award – all board members plus the RP Chair have contributed at the individual honor roll level!

All contributions are tax-deductible and should be made to:

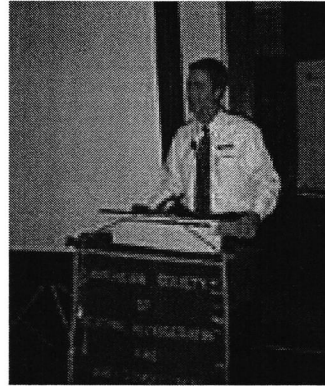
ASHRAE Research
c/o Cory Palmer
Norman Wright Mechanical Equipment Corp.
99A South Hill Drive
Brisbane, CA 94005
415-467-7600 phone / 415-467-0900 fax
cpalmer@norman-wright.com e-mail

ASHRAE Golden Gate Chapter

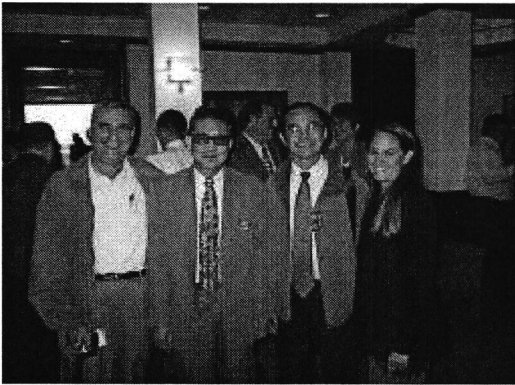
Photo Gallery – captions by Mike Scofield.



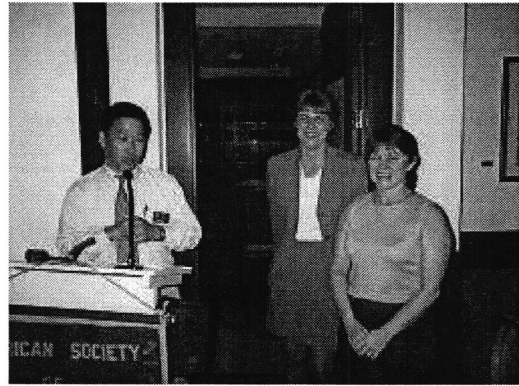
Happy GGASHRAE Campers



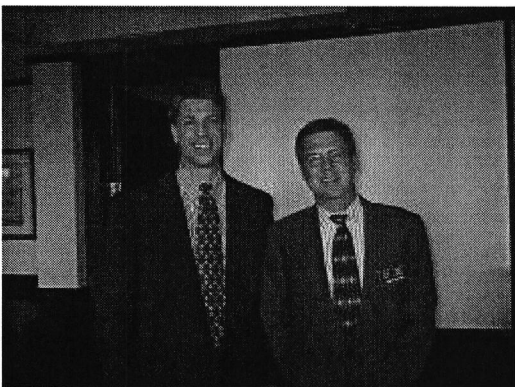
Cory Palmer



Pre-dinner smiles



Sun, Marshall and Sturm Awards



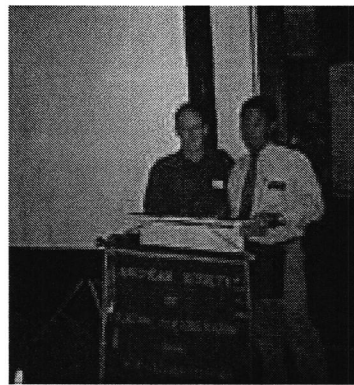
Speaker Mike deNamur and Joe Olivier.



Vic Neuman and Bob Levi



Robin James



Mark Hydeman and President Ben Sun

ASHRAE GOLDEN GATE CHAPTER - DINNER RESERVATION FAX

For Thursday November 2nd, 2000

Email: John Wintermeyer ASHRAE@atce.com *preferred method of communication!!!!*

FAX: (415) 788-6040

Please cancel your reservation if you cannot attend the meeting.

Cancellations must be received by the Tuesday prior to the meeting.

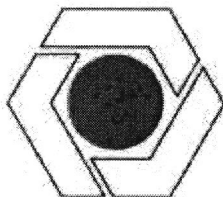
FROM: _____

COMPANY: _____ Phone: _____

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

_____	_____
_____	_____
_____	_____

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Golden Gate Chapter



ASHRAE

VOLUME XXXIX - NUMBER 3

DECEMBER 2000

Joint Meeting Notice

- Date:** December 7, 2000
- Place:** SFO Airport Doubletree Hotel
835 Airport Blvd, Burlingame, CA
- Time:** 5:00pm Pre Meeting Technical Seminar
6:00pm Society President's Reception
(no host cocktails)
7:00 Dinner
8:00pm Program Presentation
- Cost:** \$35.00 Members and Guests with prior reservations, \$37.00 for Walk-Ins (food not guaranteed)

All reservations must be received by John Wintermeyer by email at ASHRAE@atce.com or by fax (see form in this issue) to: (415)788-6040 by Friday December 1st.

Please note that the Hotel needs a guaranteed count for the meeting and will not accept additional guests over the guarantee! Make your reservation on time and show up!

Pre-Meeting Technical Seminar 5:00 p.m.
"Evaporative Cooling after Deregulation in California"

Keith Dunnnavants will present this proven energy saving concept concerning two stage Evaporative Cooling and its benefits in our dry climate. Keith published this topic as a featured article in the December 1999 ASHRAE Journal on this topic and brings his expertise to our meeting to benefit our members. See Inside for more information.

December Program:

The Future of HCFC and HFC Technologies

Speaker: Society President Jim Wolf!

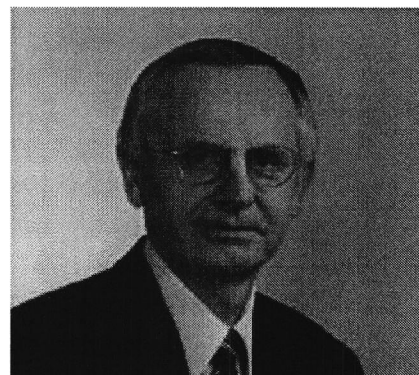
Don't Miss this Month's Meeting!

December's Meeting has been special for the last 3 years as it is our Annual Joint Meeting with the San Jose Chapter. Once a year these 2 leading chapters get together and create the Bay Area's HVAC place to be for one night.

This year's meeting is even more special due to the fact that the ASHRAE Society President, Jim Wolf, will be visiting our chapters and presenting a Distinguished Speaker's presentation on HCFC and HFC Technologies.

Who better than the Society President to give us the latest information on the issue that affects our industry more than anything else?

Join Jim and the Officers of both chapters at a very special reception prior to the meeting. It will be worth leaving work early to be there!



Golden Gate Chapter President's Message December 2000

To all those who are UNDECIDED:

This month's President's message is for those of you who are still Undecided

"Undecided" has replaced the word "Internet" and seems to be "THE Word" these days. The next U.S. President, as of this writing, is UNDECIDED. Many of us are still Undecided as to who would best govern in this political atmosphere.

This message is for members who are still UNDECIDED on coming to the December ASHRAE chapter meeting.

UNDECIDED ASHRAE members, I empathize with all of you who are busy with work and personal lives. But consider this: how many of you members out there have to come up with an inspirational message every month for the membership? I want to know!

So, all you UNDECIDED, I will look for you at the next meeting which happens to be a joint meeting with the San Jose Chapter and we will have the honorable PRESIDENT of NATIONAL ASHRAE, Mr. James E. Wolf, with us as speaker.

UNDECIDED members, turn out in force! Let us out-number the San Jose Chapter and impress Mr. Wolf with the vitality of our chapter. Bring a friend, bring a neighbor, bring your spouse and bring your co-workers. We will enjoy an interesting talk by Jim. This President won't be talking about prescription drug policy, social security solvency or educational accountability! You will all have a good time and as a bonus you will be out by 8:30pm – in time to catch your favorite 10 o'clock TV program.

So after your participation, on Thanksgiving Day, in the beginning of the five biggest poultry-consumption weeks of the year, come to the Joint ASHRAE meeting and support the only PRESIDENT YOU HAVE.

Respectfully submitted

Benjamin Sun

Golden Gate ASHRAE Prez

Looking for the Chapter's Committee Chairs? Visit the web site: ggashrae.org

December Pre Meeting Technical Seminar:

Evaporative Cooling After Deregulation in California

With the advent of electric utility deregulation, free enterprise will be subject to electric energy costs dictated by the marketing laws of Supply and Demand. In summer months, electricity costs will soar in the afternoon hours between 12:00 noon and 6:00 p.m. this same time period is when evaporative cooling systems can have their greatest impact on cooling energy requirements and subsequent costs. Evaporative cooling works best when wet bulb depression (ambient dry bulb temperature minus wet bulb temperature) is the greatest; i.e., the hours between 12:00 noon and 6:00 p.m.

Keith Donnavant, National Accounts Manager for Des Champs Laboratories, will present this timely and relevant topic. A member of ASHRAE, and frequent speaker at local ASHRAE chapters around the country, he has sixteen years of broad engineering experience in air-to-air energy recovery, dehumidification, and evaporative cooling. Keith holds a BS degree in Mechanical Engineering from North Carolina State and is a registered professional engineer in North Carolina.

SECRETARY'S CORNER

December 2000

Our meetings are getting better and better! For November, Mike Scoffield conducted a magnificent pre-meeting technical seminar about low temperature liquid over-feed systems. Again Ross Sheryl, Frank Mayhew, Charlie Nadig were among the many who attended the meeting. Cyndy Callaway, Regional TEGA Chairperson was our special visitor for this meeting.

- The only unfortunate incident of the evening was when 67 people showed up at the meeting, when only 38 reserved. But luckily the PG&E center is next to a restaurant. Ben Sun ended up ordering spaghetti and meatballs, and serving the food himself (what a president, "He aims to serve").
- The speaker for the November program, Kent Harris of PG&E, showed us the benefits and the government incentives available for electric vehicles.
- Glenn Friedman presented a synopsis of student actions, travel grants for the convention, and scholarships available to all eligible students.
- Gail Brager with husband in tow, showed up and apologized for not bringing any students. It was Student Night and Carl Jordan was wondering where the students were.
- At the monthly Board Meeting, the board approved the following motion unanimously: Bob Levi was authorized to open a Money Market account for the chapter's checking account to allow the chapter to collect interest on our checking account's balance.

Directions to the DoubleTree Burlingame:

The Doubletree is located right off Hwy. 101 in Burlingame, 835 Airport Boulevard, (650) 344-5500.

From San Jose: (a) take 280 North; (b) take 380 East towards the SF Airport and exit onto 101 South; (c) from 101 South exit Broadway/Burlingame and head east; (d) go over overpass, stay in right lane; (e) right at stoplight onto Old Bayshore Road; (f) turn left on Airport Boulevard; (g) the Doubletree is on the right side of the road

From San Francisco: (a) take 101 South; (b) exit Broadway/Burlingame and head east; (c) go over overpass, stay in right lane; (d) right at stoplight onto Old Bayshore Road; (e) turn left on Airport Boulevard; (f) the Doubletree is on the right side of the road

ASHRAE GOLDEN GATE CHAPTER - DINNER RESERVATION FAX

For Thursday December 7, 2000

Email: John Wintermeyer ASHRAE@atce.com *preferred method of communication!!!!*

FAX: (415) 788-6040

Please cancel your reservation if you cannot attend the meeting.

Cancellations must be received by the Tuesday prior to the meeting.

FROM: _____

COMPANY: _____ Phone: _____

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

_____	_____
_____	_____
_____	_____

EMPLOYMENT OPPORTUNITIES

Western Allied Corporation, a design build HVAC contractor located in Menlo Park currently has opportunities for senior mechanical engineers. Western Allied Corporation has a large variety of interesting projects including, biotechnology facilities, laboratories, data centers, dry rooms, and clean rooms, as well as office buildings, remodels, central plant replacements, and renovations. We have a genuine interest in energy efficient and innovative design options and a comfortable, family friendly working atmosphere. We offer a very attractive compensation and benefits package.

The ideal candidate would have a minimum of 5 years of HVAC design experience, a B.S. degree in mechanical engineering, a California P.E. license, have a good working knowledge of AutoCAD, Word, Excel, Carrier HAP 4.0, Outlook or Eudora and other software products, and be comfortable working alone on projects and in a team environment. Please contact Loek Vaneveld via email at lvaneveld@westernallied.com, phone: 1(650)326-0750, fax: 1(650)321-4946, or via mail at Western Allied Corporation, 1180 O'Brien Drive, Menlo Park, CA 94025.

PACIFIC ENERGY CENTER

Fall 2000 classes

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Direct Digital Controls Wednesday, December 6, 9:00 a.m. to 4:30 p.m.

Now that BACnet and LONWorks have brought interoperability and better networking options to DDC systems, how do facility managers take advantage of the new technologies? This full-day seminar covers the capabilities of these technologies and presents case studies for their application. Find out how to update existing DDC systems and add new features without replacing the old system.

Join ASHRAE President-Elect Joe Olivier as he presents this topical and informative program.

Underfloor Design Workshop Tuesday, December 12 9:00 a.m. to 4:30 p.m.

Steve Taylor of Taylor Engineering, Alisdair McGregor of Ove Arup and Partners, Clark Bisel of Flack and Kurtz, and Fred Bauman, Research Specialist at UC Berkeley's Center for the Built Environment (CBE), present design issues and techniques for underfloor HVAC systems. Instructors will present innovative projects and participate in panel discussions on design techniques. Students will also hear the latest research from UC Berkeley's CBE on the performance of underfloor systems.

Top 10 Performance Issues In Commissioning: How to Diagnose and Correct Them Wednesday, December 13 (Repeated due to high demand) 9:00 a.m. to 4:30 p.m.

This workshop, intended for facility operators, engineers, and commissioning practitioners, applies to both existing equipment and new installations. We will present results from numerous commissioning projects. Class includes a hands-on breakout session examining Pacific Energy Center equipment in operation.

ASHRAE RESEARCH YEAR-TO-DATE INVESTOR LIST

Our year 2000 ASHRAE Research is off to a great start! The following corporate and individual Honor Roll investments have been received:

Corporate Honor Roll Investors (\$150.00 or more)

<i>ATI Engineering Services</i>
<i>Flack + Kurtz, Inc.</i>
<i>JYA Consulting Engineers</i>
<i>Laws & Associates</i>
<i>Marelich Mechanical</i>
<i>Norman Wright Mechanical Equipment Corp</i>
<i>R. F. MacDonald Company</i>

Individual Honor Roll Investors (\$100.00 or more)

<i>Wasil Popow</i>	<i>Cory Palmer</i>
<i>Carl Jordan</i>	<i>Edward Arens</i>
<i>Joe Olivier</i>	<i>Edgar DeGuzman</i>
<i>John Roth</i>	<i>Bob Levi</i>
<i>John Wintermeyer</i>	<i>Ben Sun</i>
<i>Kent Lim</i>	<i>Bernard Beckius</i>
<i>Lane Loyko</i>	<i>Shlomo Rosenfeld</i>
<i>Mark Hydeman</i>	<i>Robert Voelz</i>
<i>Max Sherman</i>	<i>Lewis Brooks</i>
<i>Robin James</i>	<i>Dennis Thompson</i>

Our chapter has completed the requirements of the Full Circle Award – all board members plus the RP Chair have contributed at the individual honor roll level!

All contributions are tax-deductible and should be made to:

ASHRAE Research
c/o Cory Palmer
Norman Wright Mechanical Equipment Corp.
99A South Hill Drive
Brisbane, CA 94005
415-467-7600 phone / 415-467-0900 fax
cpalmer@norman-wright.com e-mail

Have you moved?

Members, please help us keep track of you. If you have recently changed your address, phone, fax or email, please make sure that Society's database is up to date. Call 1-800-5-ASHRAE or change information on Society's website at <http://www.ashrae.org/>. If you want to make changes on-line follow these steps:

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2. Click on "Address Change"
3. Enter your Name, Membership#, E-mail Address and any changed contact information
4. Click on submit

GOLDEN GATE CHAPTER ROSTER

The Golden Gate Chapter's Roster is scheduled for publication at the end of January. You may include your company "non-advertisement" for the following charges.

Full-Page	\$ 150.00
Half-Page	\$ 100.00
Business Card (3 per page)	\$ 75.00

The prime locations for your full-page ad will be auctioned. The following locations will go to the corresponding bidder:

Back Cover	Highest Bidder
Inside Back Cover	Second Highest Bidder
Inside Back Page	Third Highest Bidder

The way that the auction will work is that the bids must be submitted in writing (fax or e-mail) to Robin H. James no later than the January meeting (January 11th). Upon winning the prime locations, the bidders will write two checks, one for \$ 150 for the full-page ad charge and the other for the remainder of their bid to ASHRAE Research. This way the contributing company will receive the recognition for their additional Research contribution.

As always, the artwork must be camera ready or in an electronic format. Artwork must be received no later than Friday, January 12, 2001.

At the same time as you place a non-ad in the Roster, why not consider placing the same non-ad and a listing on the Golden Gate Chapter web site? For all non-advertisers in the Roster, there is only a \$30 charge to provide your non-ad and listing on our web site, as long as the artwork is in electronic format. Future changes to the website non-ad or listing will be available at any time for only a \$10 charge with your new electronic file.

Do not forget to make sure that your database information is correct. If your listing in last year's Roster was incorrect or incomplete you must update the information with Society. Please contact them by phone (1-800-5ASHRAE) or through the Members-Only section of the website (www.ashrae.org). Society's database information will be used for the Roster, so it's up to you to make sure that it is correct.

If you are just updating your information now, it is possible that Society may not get it updated in the database in time for the Roster publication. So you are welcome to also send the new date (in writing, via fax or e-mail) to Robin H. James. The Roster and Database Committees will make an attempt to manually correct the data – no guarantees!

Please send your bids, artwork, and updates to:

Robin H. James
2129 Via Alta
Benicia, CA 94510
Wk: 707-745-5998
Fax:707-745-5999
E-mail: rjames@belimo.com

ASHRAE'S Region X Chapters Regional Conference

The San Francisco ASHRAE Golden Gate Chapter is honored to host the Annual Region X Chapters Regional Conference (CRC) from May 3-5, 2001. This is a meeting of all 14 ASHRAE Chapters in the Western Region who come together to discuss chapter operations and to celebrate our successes. In attendance will be ASHRAE Board Members, Committee Chairs, Society Members, and ASHRAE members of each of the 14 chapters in Region X.

We are looking for sponsors for this special event. This is an opportunity for you to help the Golden Gate Chapter host one of the grandest meetings ever. Listed below are the sponsorship levels:

◆ **Diamond** (greater than \$1500)

- ◆ Special Mention of Sponsorship during Hornblower Yacht Cruise
- ◆ Special Mention of Sponsorship at Awards Luncheon
- ◆ Company Name & Sponsorship Level on Banner at Hornblower Yacht Cruise
- ◆ Company Name & Sponsorship Level on Banner at PG&E Energy Center
- ◆ Company Name & Sponsorship Level on Tricards placed on tables of every event
- ◆ Company Name & Sponsorship Level on Registration Package sent to all attendees

◆ **Platinum** (\$ 1,000)

- ◆ Special Mention of Sponsorship during Hornblower Yacht Cruise
- ◆ Special Mention of Sponsorship at Awards Luncheon
- ◆ Company Name & Sponsorship Level on Banner at Hornblower Yacht Cruise
- ◆ Company Name & Sponsorship Level on Banner at PG&E Energy Center
- ◆ Company Name & Sponsorship Level on Tricards placed on tables of every event
- ◆ Company Name & Sponsorship Level on Registration Package sent to all attendees

◆ **Gold** (\$ 500)

- ◆ Special Mention of Sponsorship at Awards Luncheon
- ◆ Company Name & Sponsorship Level on Tricards placed on tables of every event
- ◆ Company Name & Sponsorship Level on Registration Package sent to all attendees

◆ **Silver** (\$250)

- ◆ Company Name & Sponsorship Level on Tricards placed on tables of every event
- ◆ Company Name & Sponsorship Level on Registration Package sent to all attendees

◆ **Bronze** (\$ 100)

- ◆ Company Name & Sponsorship Level on Tricards placed on tables of every event
- ◆ Company Name & Sponsorship Level on Registration Package sent to all attendees

All Sponsorship monies can be paid with a check to "ASHRAE Golden Gate Chapter". Please mail your checks no later than December 15th to Bob Levi at the following address:

Edward B. Ward
Attn: Bob Levi
337 Roebling Rd.
So. San Francisco, CA 94080

Thank you for your support and helping the Golden Gate Chapter host one of the grandest CRC meetings in Region X.

Submitted by: Robin H. James

Buildings Needed for Research:

UC Berkeley has been awarded an ASHRAE research grant to study how personal control of operable windows affects the variability of thermal environments in buildings, and how acceptable these conditions are to the occupants. We will be conducting a series of field studies involving both physical measurements and web-based surveys. We are looking for buildings that have operable windows, and are particularly interested in including some mixed-mode buildings that also have air-conditioning. Although we're open to learning about buildings from all locations, for convenience we would prefer buildings in Northern California. If you know of any buildings that we could use in our research, or have any questions about the project, please contact Gail Brager, 510-642-1696, gbrager@socrates.berkeley.edu.

PAOE Self Reporting Form

Please complete this form and fax back to Ernie French, (415)467-0900

Every year your board and committee chairs make a mad dash to report on member activities that result in Presidential Award of Excellence (PAOE) points. In general these are educational programs, presentations to professional groups and schools, and educational activities to encourage careers in engineering. These points, a relative of the fabled Brownie points, serve an important purpose: they force the Board of Governors to keep track of the ASHRAE related activities undertaken by our members. In turn they provide an oversight function for Society and Region of the Chapters and their operations. Please take a few minutes to fill out the attached form and return it to Ernie French. Each year we will post versions of this form on the chapter website and Fog Dispenser and have it returned to the Past-President who serves as the Chapter's PAOE Chair.

Code	Description
X1	Continuing education course (EX UC Berkeley HVAC/R Course) – not refrigeration related
X2	Continuing education course (EX UC Berkeley HVAC/R Course) – refrigeration related
X3	Technical program or paper to and outside organization or group – not refrigeration related
X4	Technical program or paper to and outside organization or group – refrigeration related
X5	Presentation on HVAC/R Technology to professional or business group
X6	Presentation to school about engineering and related technologies – K-12
X7	Presentation to school about engineering and related technologies – post high-school (e.g. college or trade school)

Name

Member #:

Code	Date	Length	Approximate Attendance	Description



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**Chuck Shane • Doug Herbert • Phillip Chardon • David Day • Aaron Avila
Gladys Mendoza • Terri Shelton • Antonio Argente**

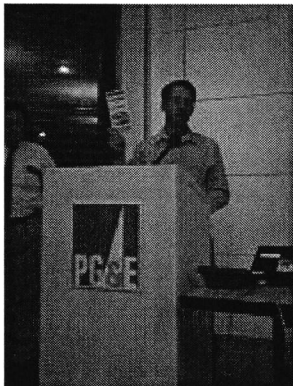
SAN JOSE OFFICE 2348-C Walsh Avenue • Santa Clara, CA 95051-1301 • Phone (408) 330 – 6199 • Fax (408) 330 – 194

Mark Hardin • Andre Shinshiro • Dan Hornak • Stephanie Baggs • Ian Bailey • Thu Pham

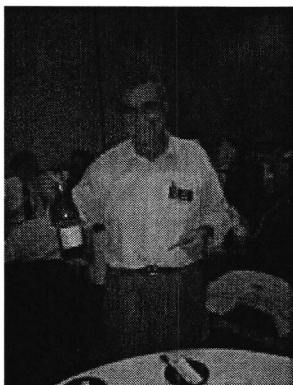
SACRAMENTO OFFICE 3741 Business Drive, Ste 200 • Sacramento, CA 95820-2165 • Phone (916) 736 – 2888 • Fax (916) 451 – 1226

**Al Alexy • Kevin McPeters • Diane Silva • Eric Synhorst • Janet Georgie
Pat McPeters • Georgia Clawson**

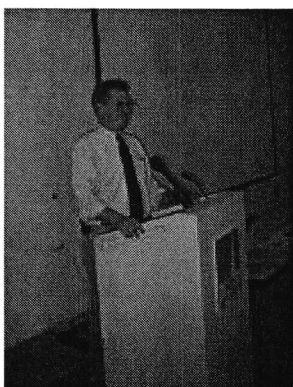
ASHRAE Golden Gate Chapter Photo Gallery



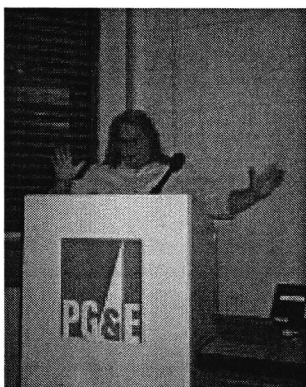
Glen Friedman



Wasil wins the wine



Joe Olivier



Speaker



Gail Brager and Carl Friedman



Robin James et al



Mike Scofield



President Ben Sun



Golden Gate Chapter
ASHRAE
 41 Sutter Street Suite 1401
 San Francisco CA 94104-4903

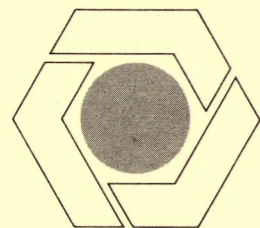
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Golden Gate Chapter



ASHRAE

VOLUME XXXVIII - NUMBER 6

MARCH, 2000

Thursday, March 2, 2000

VAV System design for Better Indoor Air Quality
 (IAQ)

Speaker: William J. Coad

Location: World Trade Club
 World Trade Center, #300
 (in the Ferry Building)
 San Francisco

Date: Thursday, March 2nd, 2000

Time: 5:30pm Registration
 6:30pm Dinner
 8:00pm Program
 9:00pm Meeting Adjournment

Cost: \$35.00 Members and Guests with reservations
\$37.00 Members and Guest without reservations.

All reservations must be received by Edgar De Guzman at edeguzman@accoair.com or fax to 650/594-4915, by Monday, February 28th.

If you need to cancel, please do so by Tuesday, February 29th.

Valet parking is available on the north side of the Ferry Building.

This talk explains the history and the physical principals of VAV systems. After exploring the genesis of the concept, the evaluation of state-of-the-art systems is presented from a critical perspective. Through an analysis of the deficiencies in the performance and economic parameters, concepts of systems based upon elementary thermodynamics and fluid theory coupled with decreased complexity will be presented.

William J. Coad is Chairman of the Board of McClure Engineering Associates, a mechanical and electrical consulting engineering firm. He has been with McClure for thirty years, engaged in the design and analysis of all aspects of building systems and as a principal of the company. He is on the Board of Directors of Mestek Corporation of Pittsburgh and of Exergen Corporation of Boston. He was an affiliate professor of mechanical engineering at Washington University, teaching graduate level courses in HVAC systems for 29 years, and is a V. P. of the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

Mr. Coad has authored a book and over one hundred articles and papers on various aspects of building systems and energy engineering. He and his firm have been pioneers in the development of computer programs for building energy analysis, cogeneration systems, well water source heat pumps, one-pipe chilled water systems, and variable flow chilled water systems. He has been active in technical, professional, and civic organizations and has received numerous awards for his technical contributions, including ASHRAE's highest award for technical achievement, the F. Paul Anderson Award.

Mark and Dave's Excellent Adventure in Dallas GGC President's Message March 2000



Freshly returned from the ASHRAE Winter Meeting in Dallas, I'm inspired to share with you reasons that led our firm to send 1/2 our office (including Dave Dacus, a junior associate) to the meeting. Although I saw many of you at the meeting including your entire Board of Governors there are far too few members of this or any chapter that attend these meetings. What offsets the disruption to our businesses and private lives not to mention the expense of traveling across the country? I gave up the comfort of my home and a weekend with my family to bunk dorm style in a hotel room with Dave and Steve, work and play in lieu of sleep and sit through meetings 10 to 12 hours a day. Many suspect that a recessive gene is responsible, but I credit combination of three factors: professional advancement, business and the satisfaction that one gets from participating in great works.

A prime reason to attend ASHRAE Society meetings is that they are educational to members of all levels of experience. Dave and I both attended programs at this meeting. I learned about advancements in control systems that allow them to self-monitor and report failures of sensors, actuators and other components. Dave learned about the design and performance of radiant cooling, and thermal storage systems. In addition to the seminars there are professional development courses (I've attended an excellent and practical course on the BACNet standard) and technical committee meetings. At this meeting I sat in on technical committees covering computer applications (TC 1.5), large building systems (TC 9.6) and cooling towers and evaporative condensers (TC 8.6). The discussions at these committee meetings, and subsequently in the bars, restaurants and hospitality suites are invaluable to any member that wants to advance their craft. I've learned about the design of ground-coupled heat pump fields, energy-efficient hybrid systems that provide 100% OSA at over 600 sf/ton for schools in the South and details on field monitoring tools and techniques for field evaluations and M&V studies. At a business level, these meetings are practical as well. This is the place where manufacturers select distributors, where distributors court specifiers and where research and advanced studies are funded and launched.

Our firm walked away from this meeting with contracts, collaborations and contacts for future projects. Projects that we are actively working on were enhanced through ad-hoc project meetings, discussions with interested parties and chance encounters with knowledgeable and influential people.

And then there's the trade show. The trade show is the premiere opportunity to learn about the new products that span the range of our industry. Steve found a variable-speed perimeter fan-coil for under floor application that solved a problem he had with a current project. Simply put ASHRAE meetings facilitate our trade through information and contacts. Personally, the most satisfying part of the meetings is the opportunity to participate in great works. Through participation in technical and society committees, members of our chapter have produced energy standards (Standards 90.1-1999 and 90.2), guidelines on commissioning (Guideline 1), guidelines for measurement of demand and energy savings (Guideline 14), thermal comfort (Standard 55), and indoor air quality (Standard 62-1999). In addition our chapter members have contributed mightily to the chapters of each of the Handbooks. For those of you that are interested in joining a committee or a committee effort here's the secret, simply show up to their meeting and volunteer. I walked into the TC 9.6 meeting to make an announcement and walked out as a member. Virtually all of the meetings at ASHRAE are open. In Dallas I attended the ASHRAE Learning Institute's (ALI) meeting. Unlike the technical committees, the Learning Institute Trustees are appointed by the President-Elect and report directly to the Society Board of Governors. In attendance were three Past-Presidents of society and Jim Wolf, the President-Elect. I proposed initiating educational seminars for training members on the newly published energy standard, ASHRAE-IES Standard 90.1-1999. I walked away with the necessary budget and a mandate to produce programs for the next three meetings. Representatives of the US Department of Energy were in attendance and they vowed both technical and financial support. And, at the ALI's recommendation, Society President Harley Goodman will request co-sponsorship of these programs from AIA and IES. From bottom to top this is a Society built on openness and participation, there is room for everyone with an interest and a willingness to get involved. I hope that this inspires some of you to participate at the Society level or to attend a future Society meeting. I can promise you that you won't regret it.

Another great experience is the Chapter's Regional Conference (CRC). Next month on Thursday March 2nd we begin in earnest to plan for the 2001 Region X CRC scheduled for San Francisco. This meeting will include a range of activities including an educational seminar, business meetings, chapter operation workshops, a golf-tournament, tours of wineries, a dinner cruise and other events. We need your help. If you are interested either contact myself or just show up to our planning meeting. The details follow:

CRC 2001 Planning Meeting
PG&E Pacific Energy Center
851 Howard Street (between 4th and 5th Streets in San Francisco)
4:30-5:30pm, Thursday March 2nd.
Contact: Mark Hydeman 510-749-9135 or mhydeman@taylor-engineering.com
I hope to see you there.

Speaking of great works, this month's Fog Dispenser is dedicated to Bob Levi and Allan Daly for their dedicated work in producing this year's Roster. Great job and many thanks!

Respectfully submitted,
Mark Hydeman, Chapter President.

ASHRAE GOLDEN GATE CHAPTER DINNER RESERVATION FAX

For **THURSDAY, March 2, 2000**

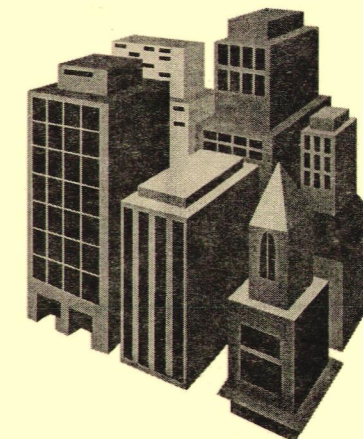
Make your reservations by **Monday, February 28th**.

Email: Edgar DeGuzman edeguzman@accoair.com *preferred method of communication!!!!*
FAX: (650) 594-4915 Please call if you have any last minute changes in plans.
Phone: (650) 631-3900 *Please cancel your reservation if you cannot attend the meeting.*
Cancellations must be received by the Tuesday prior to the meeting.

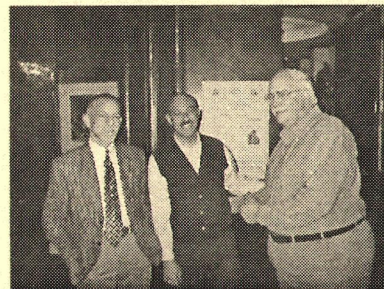
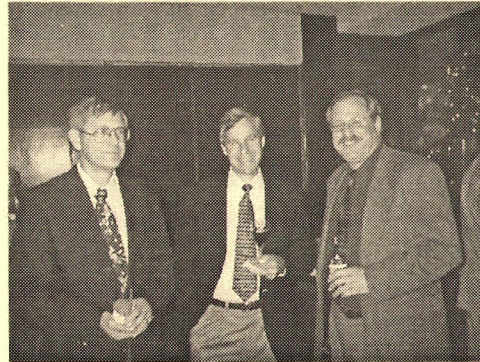
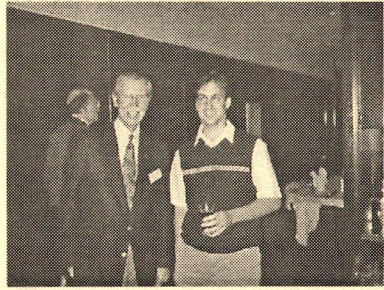
FROM:	DUK CHARLES	
COMPANY:	C&B ENGINEERS	Phone: _____
Please make <u>4</u> reservation(s) for the following people (fill in names below):		
	PAUL O'NEIL	GEORGE ARELLANO
	DUK CHARLES	
	ADAM BENZOLY	

LOCATION: World Trade Club, World Trade Center #300, (in the Ferry Building), San Francisco

(Don't destroy our natural resources, use e-mail!)



A Peek From the Cubicle



As you may have noticed, some of these pictures are from the January luncheon and from February's meeting. We are also honored with a picture of the Redwood Empire's officers. Can you pick it out?

Have you moved?

Members, please help us keep track of you. If you have recently changed your address, phone, fax or email, please make sure that Society's database is up to date. Call 1-800-5-ASHRAE or change information on Society's website at <http://www.ashrae.org/>. If you want to make changes on-line follow these steps:

- 1) Click on "Membership Records" under the "Members-Only Section" (note you will need your membership # and pin which are on your membership card).
- 2) Click on "Address Change"
- 3) Enter your Name, Membership#, EMail Address and any changed contact information
- 4) Click on submit

Official Slate of Candidates for Next Year's Board

At our March 2nd Chapter Meeting we will complete our official slate of candidates for next year's Board of Governors. The Nominating Committee (Mike Scofield, Dan Reiter and Jim Nemechek) want and need your input. Feel free to call any of them to make a recommendation. Their initial slate of candidates was announced at the February 3rd Chapter Meeting. It follows:

The Nominating Committee's Recommended Slate of Candidates

Past-President	Mark Hydeman
President	Ben Sun (this is an automatic assignment and is not voted on)
President-Elect	Joseph Olivier
Secretary	Edgar DeGuzman
Treasurer	Robert Levi
2nd Yr Board Member	Jon Wintemeyer
1st Yr Board Member	Robin James

At the March 2nd Chapter Meeting we will ratify the slate of candidates. During the March meeting, any Member in good standing can bring an additional candidate to the floor for any office except that of the President. In addition any member may bring a name to the floor by presenting it in writing to the acting Secretary, Joe Olivier, prior to the March meeting. If a name is brought to the floor and a majority of members vote for it the name will be added to the official ballot. This official ballot will be published in the April Fog Dispenser and on the chapter website. Please take the time to fill it in and return it to Joe Olivier, the acting Secretary. All of the ballots received before or at the April meeting will be tallied and next year's Board will be announced at the April 6th meeting. All of this is detailed in Section 7 of our chapter's Bylaws. Copies of the Bylaws are published in our Roster each year, and can be found on the website at http://www.ggashrae.org/by_laws.htm.

If you have any questions about the process feel free to contact a member of your Board.

*Respectfully Submitted,
Mark Hydeman, Chapter President*

Effective this meeting – the cost of dinner and meeting will be \$35/person if reservations are made by the deadline posted in the Fog Dispenser or on the website. If you show up without reservations the cost will be \$37/person. Please make sure you send in your reservations!

Also, if you register and do not make arrangements prior to the meeting for cancellation, Cory Palmer, the Research Chair, will be given your name to make payments.

(March 2000 Research Article – Fog Dispenser)

We can all encourage our colleagues, clients, vendors, and competitors to contribute to ASHRAE Research. Consider the following if you are a:

Contractor- Before you solicit quotations from manufacturers, ask them if they support ASHRAE Research. You might also want to mention that your preferred vendors tend to be Honor Roll investors. Ask them if they think it's a coincidence.

Consulting Engineer- Just as your manufacturer's representative is about to leave a new set of catalogs in your library, tell him/her that you usually specify HVAC equipment that is represented by ASHRAE Research supporters and wink at him/her.

Sales Representative- Tell each of your customers that before you can accept their purchase order, you have to be sure they are an Honor Roll investor.*

*I will double my current investment in ASHRAE Research for this year if this *ever* happens!

The minimum investment level for personal Research Honor Roll is \$100 and \$150 for a corporate contribution. Thanks to the following new Honor Roll contributors:

INDIVIDUAL

James MacDonald
Frank Mayhew
Robin James

CORPORATE/GROUP

Flow Products, Inc.

Checks to ASHRAE Research should be mailed to:

Cory Palmer
c/o Norman Wright Mechanical Equipment Company
99A South Hill Drive
Brisbane, CA 94005
415.467.7600 phone / 415.467.0900 fax

Cool Tools Seminar has been changed!! See the enclosed flyer for information!!!

PRODUCT SHOW ANNOUNCEMENT

Thursday, April 6, 2000

Annual Product and Service Show (with the American Society of Plumbing Engineers)

Location: PG&E Pacific Energy Center
851 Howard Street (between 4th & 5th)
San Francisco

Schedule: 4:30 p.m. Open for exhibitor setup
4:30-6:30 Table top displays/social hour (bar opens at 5:00 p.m. Your first drink is compliments of the exhibitors)
6:30 Dinner
7:30 Meeting
9:00 Adjournment

Speakers: Each exhibitor will each make a 30-second presentation. The topic of each presentation will be "When you use this product, service, or company, whatever you do, make sure you do (or do not) _____." The topics can be humorous and/or informative. For example, if you represented an automobile manufacturer, you might say "When you are driving down the road and want to pass someone, don't shift into "P."

Door Prizes: Everyone who pre-registers for dinner is eligible for raffle prizes. Last year we gave away over \$500 in gift certificates!

Info: Contact Cory Palmer by phone (415.467.7600 X 111) or e-mail (cpalmer@norman-wright.com)
Learning Program Coordinator
Pacific Energy Center
851 Howard Street, San Francisco, CA 94103
phone: 415/973-6960
fax: 415/896-1290
email: bwc8@pge.com

Employment Opportunities

JYA Consulting Engineers, Inc. is looking for a talented CAD operator/mechanical designer to join their team in Orinda. Please fax resumes to 925/253-8040.

MARCH AND EARLY APRIL CLASSES AT THE PACIFIC ENERGY CENTER:

**Lighting for the Elderly and Visually Impaired
Thursday, March 2, 9:00 a.m. to 4:30 p.m.**

The elderly and persons with visual impairments have special lighting needs. We will cover design considerations for achieving safe and comfortable lighted environments for partially sighted individuals.

**Whole Building Energy Benchmarking: Applications and Techniques
Tuesday, March 7, 9:00 a.m. to 4:30 p.m.**

Whole-building energy benchmarking is a critical part of the process whereby energy service companies and facility managers choose which energy retrofits to pursue. This program will cover the tools and techniques available to assist in developing benchmarks.

**Commissioning of HVAC Systems and Equipment
Thursday, March 9, 9:00 a.m. to 4:30 p.m.**

Commissioning of new and existing building energy systems has become increasingly popular and economical. We will discuss the latest tools and techniques used to commission HVAC systems and equipment.

**Baselining Electrical Loads in Buildings
Tuesday, March 21, 9:00 a.m. to 4:30 p.m.**

Learn to assess the electrical loads of buildings through the use of simple measurement tools. We will discuss the development of measurement plans, selection and programming of appropriate equipment, and evaluation of the collected data.

**Data Collection for Compressed Air
Tuesday, April 4, 9:00 a.m. to 4:30 p.m.**

In commercial and industrial facilities compressed air systems are often in disrepair and the source of significant energy waste. We will focus on measurement tools and software programs, including AirMaster, that are available for evaluation of these systems.

EVENING LECTURES AT THE PEC (Refreshments from 6 to 6:30 p.m.; Speaker from 6:30 to about 8 p.m.)

Michael Siminovitch: Bringing Lighting Excellence to the Marketplace Thursday, March 2

Michael Siminovitch, Staff Scientist at Lawrence Berkeley National Laboratory, will describe how bringing the findings of publicly funded research to the lighting industry has resulted in commercial products with improved energy and optical performance.

Galen Cranz: The Chair: Rethinking Culture, Body and Design Thursday, March 16

Galen Cranz, Professor of Architecture at UC Berkeley, examines the cultural artifact known as the chair, describing the history, physiology, and politics of how and why we sit the way we do. Professor Cranz will sign copies of her book, The Chair: Rethinking Culture, Body and Design.

Matt Taecker: We Have Feet and Other Amazing Insights for Sustainable Communities Thursday, March 30

Matt Taecker of Calthorpe and Associates will illustrate how cities and regions can grow using compact, mixed-use neighborhoods as their primary building block and how we can attain pedestrian-friendly neighborhoods even as developers, lending institutions, and government agencies emphasize the car.

Beverly W. Coleman

Save a Student, Chair the Fog

To date, no one has stepped to the plate to produce next year's Fog Dispenser. If you have a person in your office that could produce this vital part of our chapter operations PLEASE don't wait to tell us. In lieu of a volunteer the Board will vote to have the newsletter professionally typeset. This is likely to cost \$400 per issue or \$3,600 per year. That amount almost equals this year's contribution to both of the chapter's scholarship funds. Be a hero, don't leave us with this draconian choice of education or newsletters. As an added bonus if you volunteer, your company's name will be blazoned on each issue, front page, at no cost. This offer is time limited, so don't miss the opportunity. As an added bonus I will personally thank you in front of the Chapter. Remember this is a time limited offer and we are desperate.

Respectfully Submitted,

Mark Hydeman, Chapter President
Mark Hydeman, PE, Partner
Taylor Engineering, LLC
1305 Marina Village Parkway
Alameda CA 94501
(510)749-9135
(510)749-9136 FAX
mhydeman@taylor-engineering.com

The following items were voted on at the last GGC Board Meeting:

Motion by Joe Olivier to postpone the seminar to a date of Mark Hydeman's choosing.
Approved 3-0-0 CNV

Motion by Bob Levy to donate \$100 to the SF Bay Engineering Council Scholarship Fund (same amount as last year)
Approved 3-0-1 CNV

Motion by Edgar DeGuzman to charge an extra \$2 for people who show up at the meeting without a reservation
Approved 4-0-0 CNV

Upcoming Programs:

Month	Program
March 2, 2000 World Trade Club	VAV Systems for Improved Comfort and Air Quality
April 6, 2000 PG&E Energy Center	Product Show
May, 2000	Field Trip - Monterey Bay Aquarium
June 1, 2000	To Be Determined

1999/2000 Committee Chairs

How do you turn a 20 hour task into a 10 hour task? Simple, your split the load between volunteers. These committees serve you the members, and we need your help to do the work. Contact a committee chair and offer your services or contact a Board member to fill a vacancy.

rev. 2/00

Title	Name	Company	Phone	Email
Region X DRC	Kent Peterson	P2S Engineering, Inc.	562-497-2999	kwp@p2seng.com
President	Mark Hydeman	Taylor Engineering	510-749-9135	mhydeman@taylor-engineering.com
President-Elect/CRC Delegate/Chapter Programs	Benjamin Sun	Flack & Kurtz	415-398-3833	bpsun@sf.fk.com
Treasurer	Joseph Olivier	Syserco	510-498-1171	jolivier@syserco.com
Secretary/CRC Alternate	Joseph Olivier	Syserco	510-498-1171	jolivier@syserco.com
Board of Governors/PAOE Chair	Ernie French	Norman Wright Equipment Corp	415-467-7600	efrench@norman-wright.com
Board of Governors	Edgardo De Guzman	Acco Inc	650-594-0182	edeguzman@accoair.com
Board of Governors/Roster Committee Chair	Robert Levi	Carrier Corporation	510-563-5713	robert.f.levi@carrier.utc.com
Membership Promotion Committee Chair	Ronald Eng	Carrier Corp	510-563-5701	ronald.eng@carrier.utc.com
Student Activities Committee Chair	Robin James	Belimo Aircontrols	707-745-5998	riames@belimo.com
Historian	Roy Gifford	PCL Construction Services Inc	650-935-2061	
Refrigeration Committee Chair	Glenn Friedman	Taylor Engineering	510-749-9135	gfriedman@taylor-engineering.com
Research Promotion/ Honor Roll/ Product Show	Cory Palmer	Norman Wright Equipment Corp	415-467-7600	cpalmer@norman-wright.com
Technical, Energy & Government Activities Committee Chair	Gary Margadant	Consulting Engineer		gasm@napanet.net
Newsletter Editor	Debra Marshall	Paco Pumps	510-639-3200	dmarshall@flow-products.com
Honors and Awards Chair	Gail Brager	University of California	510-642-1696	gbrager@socrates.berkeley.edu
Website Chair	Robert Marcial	University of California CEDR	510-849-9057	rmarcial@uclink4.berkeley.edu
Database Chair	Allan Daly	Ove Arup & Partners California	415-957-9445	allan.daly@arup.com

Codes Committee Chair	Dick Glumac	Glumac & Associates	415-398-7667	d.glumac@glumac-sf.com
Attendance Committee Chair	Richard Charles	C & B Consulting Engineers	415-442-0110	rac@cbengineers.com
Auditing Committee Chair	Daniel Reiter	Winzler & Kelley	707-523-1010	danreiter@w_and_k.com
Tennis Committee Chair	TBD Vacant			
BAEC Committee Chair	Thomas Reinarts	Keller & Gannon	415-621-1199	tom.reinarts@keller-gannon.com
Golf Committee Chair	Charlene Sturm	Air Treatment Corp.	510-655-3990	
Marbles Game Committee Chair	Leslie Hanohano	Norman Wright Equipment Corp	415-467-7600	lhanohano@norman-wright.com
Publicity Committee Chair	Mike Scofield	Conservation Mechanical Systems	707-829-2080	cmscofield@aol.com
Reception Committee Chair (Membership Vice Chair)	Jeff Dittman	Glumac International	415-398-7667	j.dittman@glumac-sf.com
Redwood Empire Section President	Patrick Bailey	Geopraxis Inc	707-996-9408	pbailey@geopraxis.com
Seminar Committee Chair	Laurens Vaneveld	Taylor Engineering	510-749-9135	lvaneveld@taylor-engineering.com
Weather Data Committee	Nenad Saric	ATI Engineering Services	925-648-8800	nsaric@atiengineering.com
Golf Co-Chair (next year's chair)	Robert Polizzi	California Hydronics Corp	510-293-1993	bpolizzi@calhydro.com
Chapter Program Committee Chair (President Elect)	Benjamin Sun	Flack & Kurtz	415-398-3833	bpsun@sf.fk.com
Honor Roll Committee Chair (Research Chair)	Cory Palmer	Norman Wright Mechanical Equip Co	415-467-7600	cpalmer@norman-wright.com
PAOE Committee Chair (Past-President)	Ernie Wright	Norman Wright Mechanical Equip Co	415-467-7600	efrench@norman-wright.com
Product Show Committee Chair	Cory Palmer	Norman Wright Mechanical Equip Co.	415-467-7600	cpalmer@norman-wright.com
Roster Committee Chair (1 st Year Board Member)	Robert Levi	Carrier Corporation	510-563-5713	robert.f.levi@carrier.utc.com



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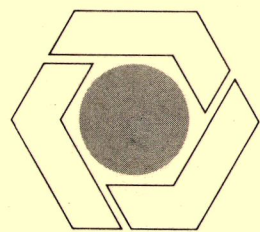
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Golden Gate Chapter



ASHRAE

VOLUME XXXVIII - NUMBER 7

Thursday, April 6, 2000

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APRIL, 2000

Product Show Events

Speaker: Exhibitors

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



Annual Product and Service Show (with the
 American Society of Plumbing Engineers)

Time: 4:30 p.m. Open for exhibitor setup
 4:30-6:30 Table top displays/social
 hour (bar opens at 5:00 p.m. Your first
 drink is compliments of the exhibitors)
 6:30 Dinner
 7:30 Meeting
 9:00 Adjournment

Cost: \$35.00 Members and Guests with reservations
**\$37.00 Members and Guest without
 reservations.**

All reservations must be received by Edgar De
 Guzman at edeguzman@accoair.com or fax to
 650/594-4915, by Monday, April 3rd.

If you need to cancel, please do so by Tuesday,
 April 4th.

Speakers: Each exhibitor will each make a
 30-second presentation. The
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 "When you use this product,
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 don't shift into "P."

Door Prizes: Everyone who pre-registers for
 dinner is eligible for raffle prizes.
 Last year we gave away over
 \$500 in gift certificates!

Info: Contact Cory Palmer by phone
 (415.467.7600 X 111) or e-mail
 (cpalmer@norman-wright.com)



GGC President's Message April 2000

"All animals are equal, but some animals are more equal than others."
[George Orwell: Animal Farm]

Last week, our firm had its first employee training in diversity and sexual harassment. As we reviewed the material I was struck by two thoughts: 1) how sad a statement it is that we have to revert to legal means to teach basic civility and 2) how much we all need this training.

Perhaps I am just biased as I consider the future for my daughter, but I am saddened by the recent political drives to end affirmative action and other equal access programs. I am also proud San Francisco and her voting record on a broad range of Civil rights issues. In elections, San Francisco stands out as a raft of tolerance in the vast unfriendly sea of California. The "majority" appears complacent with the Status Quo; the problem is that equal access on paper is not equal access in practice. As I look at our Chapter I am pleased to see the diversity in our Board and in our committee chairs, but sad to see how poorly our general membership (and profession) represent the ethnic and gender diversity of our culture. There are far too few women, Hispanics, and African Americans in our ranks to name but a few. This observation leads me to wonder if the problem outside or inside of us.

Barbara Dilts in her tenure on our Board successfully mounted a campaign to erase gender bias in the language of ASHRAE Society's Bylaws and other official documents. Some thought her efforts were an annoyance or at best an amusing sideline, and therein lies a part of the problem, it is hard to see or be motivated to change that which you don't directly experience. I am inspired by Barbara's success but her work is far from finished.

We as a society have come a long way from the public confrontations of the Civil Rights movement, covert actions of race or gender bias are illegal and on the fringe, however real but invisible walls remain. To lower these, we must struggle hard to see them. That requires empathy, patience and the strength to judge ourselves. In the words of Walt Kelly, the creator of Pogo, "We have met the enemy and he is us." If you have any thoughts about how we as a Chapter can be more inclusive, your Board is interested in your input.

*Respectfully submitted,
Mark Hydeman, Chapter President.*

Increase Your Professional Knowledge
Earn CEU or PDH Credit



Attend ASHRAE's
Professional Development Seminars (PDS)

Air System Design and Retrofit

March 27-28, 2000

Water System Design

March 29-30, 2000

in
San Diego, CA

For complete program and registration information
visit the ASHRAE Web Site: www.ashrae.org
or contact ASHRAE Customer Service
1-800-527-4723, Fax: 404-321-5478

Don't forget your contribution to ASHRAE Research, your help is needed to provide funding for research projects for energy conservation, efficiency and future challenges responding to new building design and governmental restrictions.

Checks to ASHRAE Research should be mailed to:

Cory Palmer
 c/o Norman Wright Mechanical Equipment Company
 99A South Hill Drive
 Brisbane, CA 94005
 415.467.7600 phone / 415.467.0900 fax

Cool Tools Seminar has been changed!! See the enclosed flyer for information!!!

Upcoming Programs:

Month	Program
April 6, 2000 PG&E Energy Center	Product Show
May, 2000	Field Trip - Monterey Bay Aquarium
June 1, 2000	To Be Determined

Have you moved?

Members, please help us keep track of you. If you have recently changed your address, phone, fax or email, please make sure that Society's database is up to date. Call 1-800-5-ASHRAE or change information on Society's website at <http://www.ashrae.org/>. If you want to make changes on-line follow these steps:

- 1) Click on "Membership Records" under the "Members-Only Section" (note you will need your membership # and pin which are on your membership card).
- 2) Click on "Address Change"
- 3) Enter your Name, Membership#, EMail Address and any changed contact information
- 4) Click on submit

Employment Opportunities

HVAC, plumbing design for wineries, schools, commercial. Senior Engineer/Project Mgr., PE with 7 years exper. Also, Engineer, BS with min. 2 years experience, great location, benefits; salary depends on experience. Fax resume to **Larkin & Associates**, 707-823-9363, email info@larkinme.com.

"OUR SUCCESS IS BUILT ON YOUR TALENT.....**Guttman & Blaevoet** is a well established SF consulting firm serving premier architects & building owners. We are seeking an articulate graduate mechanical engineer with at least 5 years of HVAC consulting experience. Successful candidates will have a strong academic background, be progressing toward a PE license, AUTOCAD proficient, and be highly motivated. Email to: g&b@gb-eng.com"

Official Ballot

Fax or Mail to Joe Olivier c/o SYSERCO (510) 498-1161 FAX or 44244 Fremont Blvd., Fremont, CA 94538-6000

Official Ballot of the 2000/2001 Golden Gate Chapter Board of Governors. Ballots must be received by April 6th, 2000.		
Position	Official Candidate	Write-in Candidate
Past-President	___ Mark Hydeman	_____
President-Elect	___ Joe Olivier	_____
Secretary	___ Edgar DeGuzman	_____
Treasurer	___ Robert Levi	_____
Second-Year Member	___ Jon Wintemeyer	_____
First-Year Member	___ Robin James	_____

Signed _____ Date: _____

Name (Print) _____

Instructions:

1. Either indicate selection of the "official candidate" by placing a check next to their name or fill in a write-in candidate.
2. Sign and date the ballot
3. Return ballot to Joe Olivier, the acting-Secretary

Note, in accordance with our Bylaws, Ben Sun will be automatically become the President.

**ASHRAE GOLDEN GATE CHAPTER
DINNER RESERVATION FAX**

Registration is \$35.00

For **THURSDAY, April 6, 2000**
Please respond by noon on **Monday, April 3, 2000**

E-MAIL to: Edgar De Guzman
FAX: (650) 594-4915
Phone: (650) 631-3900

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

Please cancel your reservation if you cannot attend the meeting.

e-mail: edeguzman@accoair.com

Preferred method of communication!

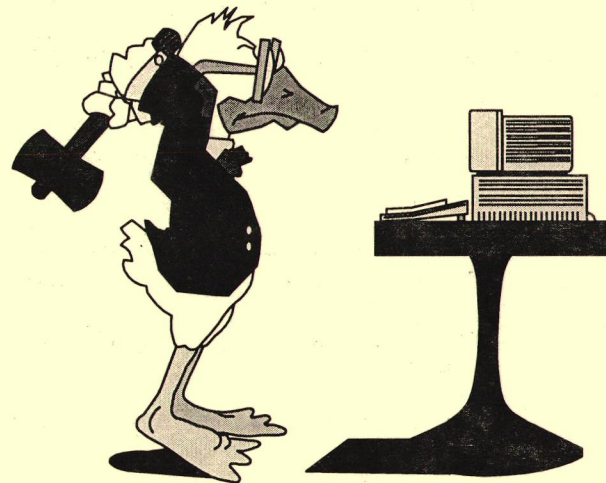
FROM: _____

COMPANY: _____ Phone: _____

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

_____	_____
_____	_____
_____	_____

LOCATION: PG&E Energy Center, 851 Howard Street (between 4th and 5th), San Francisco. Powell Street BART Station is two blocks north. Parking lot directly across the street is closed. Parking is still available at the 5th and Mission Garage. Entrance on Mission and Minna St.



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

April 2000 and early May 2000 Classes and Evening Lectures at the Pacific Energy Center

The Pacific Energy Center is located at 851 Howard Street between 4th and 5th Streets in San Francisco. We're a block from Moscone Convention Center and the Metreon. The PEC is two blocks south of the MUNI and BART lines running on Market Street. There is a parking lot between 4th and 5th Streets on Mission Street, a block away. To reserve a space in these free events, call 415-973-7268 or register online via the PEC Web site: www.pge.com/pec.

**Data Collection for Compressed Air
Tuesday, April 4, 9:00 a.m. to 4:30 p.m.**

In commercial and industrial facilities compressed air systems are often in disrepair and the source of significant energy waste. We will focus on measurement tools and software programs, including AirMaster, that are available for evaluation of these systems.

**Lighting Controls
Tuesday, April 11, 9:00 a.m. to 4:30 p.m.**

Properly applied lighting controls can create comfortable and energy-efficient spaces. We will discuss the advantages and disadvantages of different control strategies in achieving lasting benefits.

**Photovoltaics For Your Business or Home
Thursday, April 13, 9:00 a.m. to 12:00 noon**

Learn the basics needed to purchase a grid-tied PV system. Topics include performance factors, state buydown incentives, financing options, and an overview of available products.

**Low Temperature Supply Air Design
Wednesday, April 19, 9:00 a.m. to 4:30 p.m.**

A panel of three experts will discuss low temperature supply air design. A case study of a 45 F VAV supply air system recently installed in a six-story, 550,000-square-foot office building in the heart of Silicon Valley will be included.

**SPC Measurement and Verification for Small Commercial Buildings
Tuesday, April 25, 9:00 a.m. to 4:30 p.m.**

This program addresses the Measurement and Verification component of the Small Business Standard Performance Contracts program for California. After reviewing the protocols for lighting, mechanical, and controls, we will demonstrate how data collection equipment is used to quantify savings.

Evening Lecture

Refreshments: 6:00 p.m. to 6:30 p.m. and Speaker's presentation: 6:30 p.m. to (typically) 8:00 p.m.

**David Gottfried: Greening Greed
Thursday, May 4**

David Gottfried, of Gottfried Technology and co-founder of the US Green Building Council, will explore ways that embracing human greed may lead to positive environmental change in the new millennium.

Beverly W. Coleman
Learning Program Coordinator
Pacific Energy Center
851 Howard Street, San Francisco, CA 94103
phone: 415/973-6960
fax: 415/896-1290
email: bwc8@pge.com

1999/2000 Committee Chairs

How do you turn a 20 hour task into a 10 hour task? Simple, you split the load between volunteers. These committees serve you the members, and we need your help to do the work. Contact a committee chair and offer your services or contact a Board member to fill a vacancy.

rev. 2/00

Title	Name	Company	Phone	Email
Region X DRC	Kent Peterson	P2S Engineering, Inc.	562-497-2999	kwp@p2seng.com
President	Mark Hydeman	Taylor Engineering	510-749-9135	mhydeman@taylor-engineering.com
President-Elect/CRC Delegate/Chapter Programs	Benjamin Sun	Flack & Kurtz	415-398-3833	bpsun@sf.fk.com
Treasurer	Joseph Olivier	Syserco	510-498-1171	jolivier@syserco.com
Secretary/CRC Alternate	Joseph Olivier	Syserco	510-498-1171	jolivier@syserco.com
Board of Governors/PAOE Chair	Ernie French	Norman Wright Equipment Corp	415-467-7600	efrench@norman-wright.com
Board of Governors	Edgardo De Guzman	Acco Inc	650-594-0182	edeguzman@accoair.com
Board of Governors/Roster Committee Chair	Robert Levi	Carrier Corporation	510-563-5713	robert.f.levi@carrier.utc.com
Membership Promotion Committee Chair	Ronald Eng	Carrier Corp	510-563-5701	ronald.eng@carrier.utc.com
Student Activities Committee Chair	Robin James	Belimo Aircontrols	707-745-5998	rjames@belimo.com
Historian	Roy Gifford	PCL Construction Services Inc	650-935-2061	
Refrigeration Committee Chair	Glenn Friedman	Taylor Engineering	510-749-9135	gfriedman@taylor-engineering.com
Research Promotion/ Honor Roll/ Product Show	Cory Palmer	Norman Wright Equipment Corp	415-467-7600	cpalmer@norman-wright.com
Technical, Energy & Government Activities Committee Chair	Gary Margadant	Consulting Engineer		gasm@napanet.net
Newsletter Editor	Debra Marshall	Paco Pumps	510-639-3200	dmarshall@flow-products.com
Honors and Awards Chair	Gail Brager	University of California	510-642-1696	gbrager@socrates.berkeley.edu
Website Chair	Robert Marcial	University of California CEDR	510-849-9057	rmarcial@uclink4.berkeley.edu
Database Chair	Allan Daly	Ove Arup & Partners California	415-957-9445	allan.daly@arup.com

Codes Committee Chair	Dick Glumac	Glumac & Associates	415-398-7667	d.glumac@glumac-sf.com
Attendance Committee Chair	Richard Charles	C & B Consulting Engineers	415-442-0110	rac@cbengineers.com
Auditing Committee Chair	Daniel Reiter	Winzler & Kelley	707-523-1010	danreiter@w_and_k.com
Tennis Committee Chair	TBD Vacant			
BAEC Committee Chair	Thomas Reinarts	Keller & Gannon	415-621-1199	tom.reinarts@keller-gannon.com
Golf Committee Chair	Charlene Sturm	Air Treatment Corp.	510-655-3990	
Marbles Game Committee Chair	Leslie Hanohano	Norman Wright Equipment Corp	415-467-7600	lhanohano@norman-wright.com
Publicity Committee Chair	Mike Scofield	Conservation Mechanical Systems	707-829-2080	cmscofield@aol.com
Reception Committee Chair (Membership Vice Chair)	Jeff Dittman	Glumac International	415-398-7667	j.dittman@glumac-sf.com
Redwood Empire Section President	Patrick Bailey	Geopraxis Inc	707-996-9408	pbailey@geopraxis.com
Seminar Committee Chair	Laurens Vaneveld	Taylor Engineering	510-749-9135	lvaneveld@taylor-engineering.com
Weather Data Committee	Nenad Saric	ATI Engineering Services	925-648-8800	nsaric@atiengineering.com
Golf Co-Chair (next year's chair)	Robert Polizzi	California Hydronics Corp	510-293-1993	bpolizzi@calhydro.com
Chapter Program Committee Chair (President Elect)	Benjamin Sun	Flack & Kurtz	415-398-3833	bpsun@sf.fk.com
Honor Roll Committee Chair (Research Chair)	Cory Palmer	Norman Wright Mechanical Equip Co	415-467-7600	cpalmer@norman-wright.com
PAOE Committee Chair (Past-President)	Ernie Wright	Norman Wright Mechanical Equip Co	415-467-7600	efrench@norman-wright.com
Product Show Committee Chair	Cory Palmer	Norman Wright Mechanical Equip Co.	415-467-7600	cpalmer@norman-wright.com
Roster Committee Chair (1 st Year Board Member)	Robert Levi	Carrier Corporation	510-563-5713	robert.f.levi@carrier.utc.com



Golden Gate Chapter
ASHRAE
 41 Sutter Street Suite 1401
 San Francisco CA 94104-4903

FIRST CLASS MAIL



RICHARD A CHARLES
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 150 Spear St Ste 500
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SAN JOSE OFFICE 2348-C Walsh Avenue • Santa Clara, CA 95051-1301 • Phone (408) 330 - 6199 • Fax (408) 330 - 6194

Eric Tinglof • Mark Hardin • Andre Shinshiro • Dan Hornak

SACRAMENTO OFFICE 3741 Business Drive, Ste 200 • Sacramento, CA 95820-2165 • Phone (916) 736 - 2888 • Fax (916) 451 - 1226

Al Alexy • Kevin McPeters • Diane Silva • Eric Synhorst • Janet Georgie • Pat McPeters

FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVIII - NUMBER 8

MAY, 2000

Annual Field Trip

Friday, May 19, 2000

Where: Monterey Bay Aquarium

Visit to the Aquarium and the behind the scene mechanical operations. Unfortunately, the visit is **limited to the first 40 people** who sign up due to the limited number of docents.

Cost: \$50.00 PER PERSON/\$15 FOR DINNER VOUCHER HOLDER.

Includes: Box Lunch, Admission, Docent Tour, Deluxe Bus Ride To/From Monterey.

Time: BUS PICK UP: 8:15 AM WITH 8:30 AM SHARP DEPARTURE MAY 19 AT: 1ST AND NATOMA (BEHIND THE S.F. TRANSBAY TERMINAL) \$ 12-14 ALL DAY PARKING NEARYBY.

RETURN: Arrive back in SF 6-6:30 PM

All reservations must be received by Edgar De Guzman at edeguzman@accoair.com or fax to 650/594-4915, by Monday, May 8th.

THE PRODUCT & SERVICE SHOW WAS A HUGE SUCCESS!

Thanks to the 31 companies who exhibited at the annual Product & Service Show on April 6. We had a last-minute sponsorship request by the Northern California Mechanical Contractors' Association. MCA didn't actually have a table at the Show, but they wanted to sponsor raffle prizes and hors d'oeuvres.

Also, thanks to Mike Marshall and ASPE for helping increase our participation more than twofold from last year. Hopefully the ASPE members also felt like the Show was worth their time and effort.

I look forward to another great Product Show next year!

Sincerely,

Cory Palmer

GGC President's Message May 2000



From the Mouths of Babes

"The most incomprehensible thing about the universe is that it is comprehensible." – Albert Einstein

The other night at dinner, my seven year-old daughter asked me, "Dad, what's a googolplex?" Though I didn't realize it at the moment, the timing of this question at the heels of the Golden Gate Chapter's awards for the Bay Area Science Fair was uncanny. Expecting that this was a made-up word, I humored her by reaching for my dictionary. To my shock, I was confronted with a definition:

"goo-gol-plex (goo-gol-pleks)*n.* The number 10 raised to the power googol: the number 1 followed by 10¹⁰⁰ zeros. [GOO-GOL + (DU)PLEX.]" – American Heritage Dictionary, Second College Edition.

My mind began to reel, what possible application could there be for a number with 100 zeros behind it, much less 10¹⁰⁰ zeros? To fathom this I tried a quick mental calculation: From Avagadro's theorem I knew that there are 6.023X10²³ atoms in a gram of hydrogen. Rounding this to 10²⁴, I attempted to grasp the number 10¹⁰⁰ by imagining Avagadro's number to the forth power: ~10²⁴ atoms in a gram, ~10²⁴ grams in a star, ~10²⁴ stars in a galaxy, ~10²⁴ galaxies in a universe. This calculation was only to grasp a number with 100 zeros, a googolplex is 10 raised to this number!

It was then that I grasped the "power" of Gogol: an innocent question from an inquisitive 7-year old reacquainted me with the vastness of the universe. Without missing a beat I responded, "it's the number of the smallest things that we have found in the largest thing our minds can grasp."

At our meeting on April 6th, four students from 7th through the 10th grades shared with us their award winning projects from the Bay Area Science Fair. A serious lad (7th grader) with bottle bottom glasses calmly explained to an audience of adults how he calculated the value of the conductivity of metals. In great detail he described his first failed experiment which led to another with greater control and better results. Another winner described his experiment to make electricity from citrus fruit.

I first judged the Bay Area Science Fair as Student Activities Chairman for the Golden Gate Chapter. It was six years ago, and my daughter was squealing and thrashing in a child carrier on my back. Judging the exhibits and giving out the awards was a highlight of that and the subsequent years that I judged this event. The dedication and interest that is reflected in these exhibits is both impressive and inspiring.

This month's Fog Dispenser is dedicated to all of the volunteers in our chapter that help with education and Student Activities. Only a few of the kids involved in these programs may join our ranks, but to a one they will enrich our lives. Thanks to Robin James our outgoing Student Activities Chair and Glenn Friedman who is taking the Chair for next year. Kudos to Don Nurisso for volunteering to serve as co-chair and Joe Olivier for his great presentation on this year's awards and continuing involvement in judging them. Special thanks to Steve Taylor, Reinart Seidel, Frank Mayhew, Carl Jordan, Lewis Brooks, Bob Polizzi, Calvin Laws, Bob Braun and all of the others that have put their hearts and hard work into the Golden Gate Chapter and U. C. Berkeley Extension HVAC/R certificate program. Finally I would like to recognize the late Don Bryant for his leadership and dedication in setting up this certificate program and other educational programs for our colleagues of the future.

"The important thing is not to stop questioning. Curiosity has its own reason for existing. One cannot help but be in awe when he contemplates the mysteries of eternity, of life, of the marvelous structure of reality. It is enough if one tries merely to comprehend a little of this mystery every day. Never lose a holy curiosity." – Albert Einstein

**Respectfully submitted,
Mark Hydeman, Chapter President.**

**ASHRAE GOLDEN GATE CHAPTER
DINNER RESERVATION FAX**

For FRIDAY, May 19th, 2000
Make your reservations by Monday, May 8th.

Email: Edgar DeGuzman edeguzman@accoair.com *preferred method of communication!!!!*
FAX: (650) 594-4915 Please call if you have any last minute changes in plans.
Phone: (650) 631-3900 *Please cancel your reservation if you cannot attend the meeting.
Cancellations must be received by the Tuesday prior to the meeting.*

FROM: _____

COMPANY: _____ Phone: _____

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

LOCATION: **Monterey Bay Aquarium**

Visit to the Aquarium and the behind the scene mechanical operations.
Unfortunately, the visit is **limited to the first 40 people** who sign up due to the limited number of docents

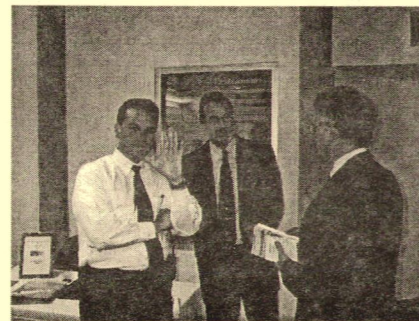
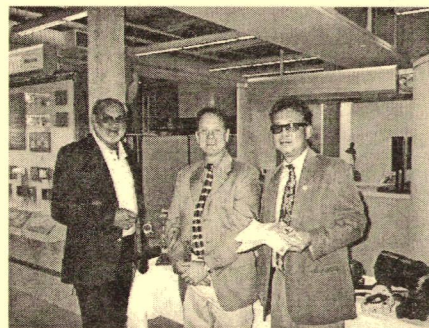
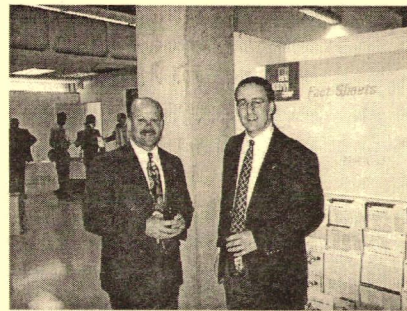
\$50.00 PER PERSON/\$15 FOR DINNER VOUCHER HOLDER.
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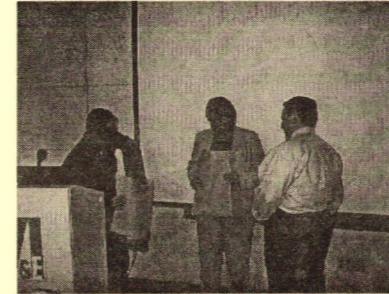
It Was a Night of Excitement



Minutes for the Chapter Meeting April 6, 2000

The meeting was called to order. There were 62 attendees, including 6 students.

After self-introductions, Joe Olivier announced the results of the balloting for next year's officers. The ballots indicated that Robin James and Jon Wintermeyer will join the board next year.



Ben Sun will be President
 Joe Olivier will be President Elect
 Edgar DeGuzman will be Secretary
 Bob Levy will be Treasurer

The motion to approve the last meeting's minutes was approved

The following volunteers were recognized for their contributions to the Chapter:
 Robin James for her work in Student Activities
 Cory Palmer for his work with Research



Mark Hydeman announced that Reinhard Seidl will be the new Refrigeration Chair

Gail Braeger won a Distinguished Service Award from Society
 Dick Charles won an Exceptional Service Award from Society

Ben Sun announced:

- CRC 2000 will be in Vancouver May 11-13th
- Ross Sherril sent his daughter on the trip he won to Las Vegas
- The May field trip will be to the Monterey Aquarium – date to be announced

Mark H announced that CRC 2001 will be held at the Pacific Energy Center

*Respectfully Submitted,
 Joe Olivier, Treasurer*

Upcoming Programs:

Month	Program
May, 2000	Field Trip - Monterey Bay Aquarium
June 1, 2000	To Be Determined

ASHRAE Millennium North -vs- South Golf Tournament

Have you moved?

Members, please help us keep track of you. If you have recently changed your address, phone, fax or email, please make sure that Society's database is up to date. Call 1-800-5-ASHRAE or change information on Society's website at <http://www.ashrae.org/>. If you want to make changes on-line follow these steps:

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- 2) Click on "Address Change"
- 3) Enter your Name, Membership#, EMail Address and any changed contact information
- 4) Click on submit

Employment Opportunities

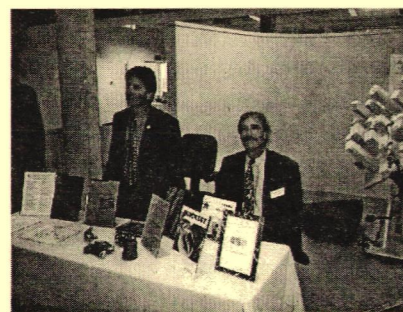
Bevilacqua-Knight, Inc. (BKi) has an immediate opening for an engineer with 5+ years of experience in the buildings and process energy efficiency field. BKi doesn't do engineering design, instead focusing on researching and moving new technologies and practices into commercial use.

> We have long supported many EPRI RD&D programs in energy-use technologies and practices, and also provide a variety of studies and technical communications products for electric utilities, state agencies, and others; check our website, bki.com, for more details.

The person we're looking for must be flexible and have broad professional interests as well as solid technical knowledge. S/he will lead or provide technical content for our projects, with an emphasis on technology selection and use, market potential, and market transformation planning.

We also have an opening for a technical writer experienced in energy topics and marketing. This involves a broad range of topical researching and writing, including utility consumer materials, technical briefs, newsletters, editing and production of technical reports, etc., often in concert with a BKi engineer and graphics designer.

BKi is a small firm (~15) in Oakland City Center at 12th Street BART, a great environment. We offer competitive compensation and excellent benefits. Send resume, references, and salary range expectations to smccall@bki.com or fax 510/444-2072.



Where:

Sunol Valley Golf Club
6900 Mission Road
Sunol, California 94586
Phone: (925) 862-0414

When:

Friday, June 23rd, 2000
10:45 a.m. - 12:20 Sign-In
12:30 p.m. - Shotgun Start
Four Person Team Scramble
6:00 p.m. Happy Hour & Awards Dinner

*Door Prizes Raffle Prizes
\$10,000 Hole-In-One Contest
Putting Contest*



Entry form

This form is for ALL PLAYERS. It will help us distribute information to all players for Game Day. Please complete and fax it to: Charlene Sturm (510) 655-7966

Deadline for reservations is 5/31/00.

Your Name: _____ Company: _____

Please check if () you will be the Team Captain, and/or () primary contact for your company.

Mailing Address: _____

City: _____ Zip: _____

Phone: _____ Fax: _____ E-mail: _____

♣ Please send all the Golfing details to the address above via () fax, () email () US mail
I will be playing as:

_____ A Single player looking for a team to join.

_____ A member of the Company Sponsored Team of _____

♣ I am interested supporting Golden Gate ASHRAE by sponsoring the following:

_____ \$10,000 Hole In One Contest.

_____ \$ Big Bucks \$ Putting Contest.

_____ Longest Drive Contest or Closest to the Pin Contest

_____ Tee-Sponsor for a Hole.

Please Forward this form to: **Charlene Sturm, c/o Air Treatment Corporation**

**1865 Pleasant Valley Avenue, Oakland, CA
94611**

Phone: (510) 655-3990 Fax: (510) 655-7966

E-mail address: csturm@airtreatment.com

Monitoring and Verification Evaluation Tool
Tuesday, June 6, 9:00 a.m. to 4:30 p.m.

This program will include a presentation of M&V protocols. David Jump of Schiller Associates will present a software program that develops cost-effective M&V plans.

Daylighting for Schools

Wednesday, June 7, 6:00 p.m. to 9:00 p.m.

Get an update on the most recent trends in daylighted schools, including examples of building design concepts and specific technical solutions.

=====

RESEARCH UPDATE: MAY 2000

What a great month for ASHRAE Research within our Chapter!

Honor Roll for Research begins at \$100 for personal contributions and \$150 for corporate contributions. During the month of April, we received the following Personal Honor Roll contributions:

Jim Nemechek
Mike Scofield
Barbara Dilts
Ron Yaffe
Edith Quinn

Also, thank you for the following corporate Honor Roll contributions:

C & B Consulting Engineers
Flack & Kurtz Consulting Engineers
Thomas Gilbertson & Associates
Tempco Equipment Company

ASHRAE Research contributions can be made by check or credit card. See me at any Chapter meeting and ask for a credit card payment envelope. Checks should be payable to "ASHRAE Research" and mailed or given to:

Cory Palmer
Norman Wright Mechanical Equipment Corp.
99A South Hill Drive
Brisbane, CA 94005
415.467.7600 phone

Thanks for your continued support and assistance,

Cory Palmer
Research Promotion Chair, 1999-2000

MAY AND EARLY JUNE CLASSES AT THE PACIFIC ENERGY CENTER:

May 2000 and early June 2000 Classes and Evening Lectures at the Pacific Energy Center

> The Pacific Energy Center is located at 851 Howard Street between 4th and 5th Streets in San Francisco. We're a block from Moscone Convention Center and the Metreon. The PEC is two blocks south of the MUNI and BART lines running on Market Street (exit at the Powell Street Station).

>
> There is a parking lot between 4th and 5th Streets on Mission Street, a block away.

>
> To reserve a space in these free events, call 415-973-7268 or register online via the PEC Web site: www.pge.com/pec.

>
Building Diagnostics Software
Tuesday, May 16, 9:00 a.m. to 4:30 p.m.

Diagnosing facility problems requires continuous assessment of building systems and a quick evaluation of collected data. This hands-on program will feature tutorials on many of the software products recently developed to address this need.

Desktop Radiance
Wednesday and Thursday, May 17 and May 18, 9:00 a.m. to 4:30 p.m.

Desktop Radiance, a plug-in for AUTOCAD, makes highly accurate lighting software accessible to design professionals. In this two-day, hands-on course, students will learn to model a space. Participants receive a free copy of Desktop Radiance. Proficiency in AUTOCAD 14 is required.

Lighting for Retail
Tuesday, May 23, 9:00 a.m. to 4:30 p.m.

Through hands-on exercises in our lighting demonstration classroom, explore how light can be used as a tool to mold perception, attract prospective buyers, and create visual impact.

Passive Design
Wednesday, May 24, 6:00 p.m. to 9:00 p.m.

Discover how to respond to local conditions and climate data in your design and reap the rewards of passive cooling and heating in small commercial and residential buildings.

ASHRAE--Golden Gate Chapter

Energy-Efficiency Opportunities in Chilled Water Plant Design
Wednesday, March 29, 9:00 a.m. to 4:30 p.m.
(\$150 course fee includes lunch)

Learn the latest tools and techniques in designing energy-efficient chilled water plants. Instructors will include members of the CoolTools(tm) Chilled Water Plant Design Guide development team*Steve Taylor and Mark Hydeman of Taylor Engineering and Paul DuPont of DuPont and Dobbs. For more information and to register, contact Loek Vaneveld by phone at 510-749-9135 or email at lvaneveld@taylor-engineering.com.

What's New in Lighting Technologies?
Thursday, June 1, 9:00 a.m. to 1:00 p.m.

Successful lighting practitioners must keep pace with state-of-the-art lighting equipment and applications. Class includes hands-on demonstrations of the latest sources, ballasts, luminaires, and controls.

1999/2000 Committee Chairs

How do you turn a 20 hour task into a 10 hour task? Simple, you split the load between volunteers. These committees serve you the members, and we need your help to do the work. Contact a committee chair and offer your services or contact a Board member to fill a vacancy.

rev. 2/00

Title	Name	Company	Phone	Email
Region X DRC	Kent Peterson	P2S Engineering, Inc.	562-497-2999	kwp@p2seng.com
President	Mark Hydeman	Taylor Engineering	510-749-9135	mhydeman@taylor-engineering.com
President-Elect/CRC Delegate/Chapter Programs	Benjamin Sun	Flack & Kurtz	415-398-3833	bpsun@sf.fk.com
Treasurer	Joseph Olivier	Syserco	510-498-1171	jolivier@syserco.com
Secretary/CRC Alternate	Joseph Olivier	Syserco	510-498-1171	jolivier@syserco.com
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Golden Gate Chapter
ASHRAE
 41 Sutter Street Suite 1401
 San Francisco CA 94104-4903

FIRST CLASS MAIL



RICHARD A CHARLES
 C & B CONSULTING ENGINEERS
 150 Spear St Ste 500
 San Francisco CA 94105-1537



**JUNE 30 IS THE DEADLINE FOR THIS YEAR'S
 ASHRAE RESEARCH CAMPAIGN!**

SINCERE THANKS FROM OUR CHAPTER TO THE INDIVIDUALS AND CORPORATIONS
 WHO HELPED THIS YEAR.

LAST-MINUTE CONTRIBUTIONS ARE ENCOURAGED!

FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVIII - NUMBER 9

JUNE, 2000

Last Meeting of the Fiscal Year Past President's Night

All Past President's of the Golden Gate Chapter of ASHRAE in attendance at this last meeting of the year will receive two complimentary drinks courtesy of the Chapter.

Location: World Trade Club
 World Trade Center, #300
 (in the Ferry Bldg)
 San Francisco

Date: Thursday, June 1st

Time: Social Hour 5:30
 Dinner 6:30
 Meeting 7:30
 Adjournment 9:00

Cost: \$35.00, Members and Guests
 with advance reservations
 \$37.00 at the door

All reservations must be received by Edgar De Guzman at edeguzman@accoair.com or fax to 650/594-4915, by Tuesday, May 30th.

Pictures From the Past



GGC President's Message June 2000



How to Eat (and Enjoy) an Elephant

Mark Hydeman's Final President's Message, June 2000

Last night as we put the final touches on our analysis, Jeff Stein and I paused to look at the clock. It was 8:15pm and we were 12 hours into this workday and at the tail end of a taxing six weeks on this project. We were punchy, worn from mental exertion and lack of sleep, but we were elated at our accomplishment: we had completed our work on time and exceeded the expectations of our client. Most importantly, we had formed a team.

As I look back to the start of our project, the kick-off meeting at the end of March, I recall my reaction to the enormity of the task that we had just taken on: we had six weeks to survey 3.8 Million square feet of industrial high-tech facility space; assess the condition of the mechanical equipment; evaluate and cost measures to improve the efficiency of that mechanical equipment; and write our reports. I recall feeling a unique mixture of awe and excitement heightened by a real sense of fear. Six weeks to eat an elephant, no, six weeks to eat the Mother of All Elephants. The words of my first HVAC industry boss, Hank Huddleston came to mind,

“Son, there is only one way to eat an elephant – take one bite at a time.”

During our preparations, there were other smaller meals: family events including birthdays, anniversaries and a funeral; our small children and their worlds of school, play-dates and time with their dads; our volunteer work including chapter meetings and Board meetings; and other projects that demanded our attentions.

In the many years since I have worked with Hank Huddleston, I have learned a lot about eating elephants. I would like to share a few observations:

1. Start your preparations with two cups of courage and a pinch of calm, if you can't eat this elephant, it simply can't be done.
2. Locate some help; the best help is independent and motivated but able to work as a team. Find people that you enjoy working with, the process is as important as the product.
3. Size up the elephant; will it fit in your oven? If not, consider a larger oven or buy a chain saw.
4. Marinate in a rich red wine; don't spare the expense. Buy enough for the elephant and the entire kitchen staff.
5. Cook the elephant in stages; all elephants are composed of logical subsections, each of which require unique preparation. Saute the trunk and braise the legs. Slow roast the body in a wood-fired oven.
6. Don't overcook; the elephant should be firm and juicy. Nothing is harder on the palate than a tough dry beast. Use a paucity of spice to emphasize the natural flavor, the elephant is the dish not the garlic.
7. Don't forget to set a nice table with silverware and flowers; any effort this large should be a satisfying experience.
8. Invite a few of your closest friends and colleagues to share in the feast; don't spare the wine.

I am not alone in my ventures with elephants, your entire Board has been working overtime juggling obligations with work, family and our joint service to ASHRAE. Many a weekend I have sent emails to the Board for chapter business only to see a reply bounce back from the ether, a fellow Board member busy at their day job but still able and willing to offer their services to the chapter. I am proud to serve with this dedicated and inspiring Board, their dedication has made my job easier and bolstered my spirits. I am also inspired by the many extraordinary chapter members who answered my call for volunteers. Principal amongst these is Rachel Bannon, a student newly arrived in our area, who offered to take on the chapter newsletter single handedly after many large companies failed to step to the plate.

In addition to Rachel, I would like to recognize the following people for their unique contributions to the chapter this year: Ben Sun, Joe Olivier, Bob Levi, Ed DeGuzman, Robin James, Debby Marshall, Robert Marcial, Allan Daly, Dick Charles, Charlene Strum, Ron Eng, Jeff Dittman, Cory Palmer, Loek Vaneveld, Glenn Friedman, Mike Scofield, Leslie Hanohano, Gary Margadant and Pat Bailey. You have earned my respect and good karma.

Remember, it takes a community to prepare an elephant, but an elephant can feed a community.

My thanks to you all for a great and memorable year.

*Respectfully submitted,
Mark Hydeman, Chapter President and soon to be Past-President.*

**ASHRAE GOLDEN GATE CHAPTER
DINNER RESERVATION FAX**

For THURSDAY, June 1, 2000

Make your reservations by Tuesday, May 30th.

Email: **Edgar DeGuzman** edeguzman@accoair.com *preferred method of communication!!!!*
FAX: (650) 594-4915 Please call if you have any last minute changes in plans.
Phone: (650) 631-3900 *Please cancel your reservation if you cannot attend the meeting.
 Cancellations must be received by the Tuesday prior to the meeting.*

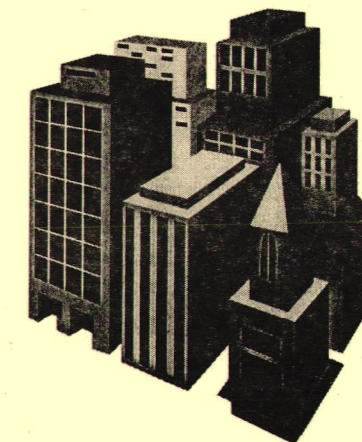
FROM: _____

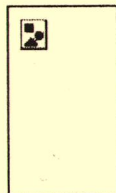
COMPANY: _____ Phone: _____

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

LOCATION: World Trade Club, World Trade Center #300, (in the Ferry Building), San Francisco

(Don't destroy our natural resources, use e-mail!)





Millenium 2000 North -vs- South
ASHRAE Golf Tournament

sponsorship available

We hope you will consider placing your Company logo or name on a Tee-Sign at this year's Tournament, benefiting ASHRAE Research & Local Scholarship Fund

2 - \$ 10,000

Hole-In-One Tee-Sponsor

\$ 450 each

(2 Easy Money Par 3 Shots!)

Tee Contest Sponsors

2 - "Longest Drive Contest"

2 - "Closest to the Pin Contest"

\$ 175 per contest

(Company Name on Trophy)

All Sponsors receive Signage and our Greatest Appreciation for your Contributions!

Send this completed form to Charlene Sturm Fax: 510.655.7966 or email: csturm@airtreatment.com
Send your camera-ready art/logo, letterhead, business card or your company name as you want it to appear on your Tee-Sign by **June 9, 2000** along with your check payable to **Golden Gate ASHRAE**,
To: Charlene Sturm, In c/o Air Treatment Corporation, 1865 Pleasant Valley Ave., Oakland, CA 946011

Tee-Sponsor

\$ 125 per hole

(Special: 3 for \$300)

\$5,000

Putting Green Contest

\$ 200

NAME: _____ Phone: _____
 COMPANY: _____ Fax: _____ email: _____
 RESERVATION FOR: _____ \$10,000 Hole In One _____ Longest Drive _____ Closest to the Pin
 _____ \$5,000 Putting Green Contest _____ Tee Sponsor _____ Tee Sponsor Special (3 for \$300)
 Fill in the blank with the number of sponsorships you are reserving. *Reservations valid upon receipt of payment.*

YOUR TOTAL CONTRIBUTION: \$ _____

Thank You!!

Minutes for the Chapter Meeting May 19,2000

The Fog Dispenser went to print prior to the field trip so no minutes. Check out the September newsletter.

Upcoming Programs:

Month	Program
June 1, 2000	World Trade Center - Past President's Night

Have you moved?

Members, please help us keep track of you. If you have recently changed your address, phone, fax or email, please make sure that Society's database is up to date. Call 1-800-5-ASHRAE or change information on Society's website at <http://www.ashrae.org/>. If you want to make changes on-line follow these steps:

- 1) Click on "Membership Records" under the "Members-Only Section" (note you will need your membership # and pin which are on your membership card).
- 2) Click on "Address Change"
- 3) Enter your Name, Membership#, EMail Address and any changed contact information
- 4) Click on submit

RESEARCH UPDATE: JUNE 2000

Help your Chapter finish strong by contributing to ASHRAE Research! The Research campaign ends June 30 and we are significantly short of our Chapter's goal of \$36,000.00.

Honor Roll for Research begins at \$100 for personal contributions and \$150 for corporate contributions. During the month of May, we received the following Personal Honor Roll contributions:

John Ward
Robin James

Also, thank you for the following corporate Honor Roll contributions:

Tempco Equipment Company, Inc.
MHC Engineers

ASHRAE Research contributions can be made by check or credit card. See me at any Chapter meeting and ask for a credit card payment envelope. Checks should be payable to "ASHRAE Research" and mailed or given to:

Cory Palmer
Norman Wright Mechanical Equipment Corp.
99A South Hill Drive
Brisbane, CA 94005
415.467.7600 phone

Thanks for your continued support and assistance,

Cory Palmer
Research Promotion Chair, 1999-2000

ASHRAE Millennium North -vs- South Golf Tournament

Where:
 Sunol Valley Golf Club
 6900 Mission Road
 Sunol, California 94586
 Phone: (925) 862-0414

When:
 Friday, June 23th, 2000
 10:45 a.m. - 12:20 Sign-In
 12:30 p.m. - Shotgun Start
Four Person Team Scramble
 6:00 p.m. Happy Hour & Awards Dinner

Door Prizes Raffle Prizes
\$10,000 Hole-In-One Contest
Putting Contest



Entry form

This form is for ALL PLAYERS. It will help us distribute information to all players for Game Day.
 Please complete and fax it to: Charlene Sturm (510) 655-7966

Deadline for reservations is 5/31/00.

Your Name: _____ Company _____
 Please check if () you will be the Team Captain, and/or () primary contact for your company.

Mailing Address: _____

City: _____ Zip: _____

Phone: _____ Fax: _____ E-mail: _____

♣ Please send all the Golfing details to the address above via () fax, () email () US mail
 I will be playing as:

_____ A Single player looking for a team to join.
 _____ A member of the Company Sponsored Team of _____

♣ I am interested supporting Golden Gate ASHRAE by sponsoring the following:

_____ \$10,000 Hole In One Contest.
 _____ \$ Big Bucks \$ Putting Contest.
 _____ Longest Drive Contest or Closest to the Pin Contest
 _____ Tee-Sponsor for a Hole.

Please Forward this form to: **Charlene Sturm, c/o Air Treatment Corporation**
1865 Pleasant Valley Avenue, Oakland, CA 94611
 Phone: (510) 655-3990 Fax: (510) 655-7966
 E-mail address: csturm@airtreatment.com

**ASHRAE Millennium North -vs- South
 Golf Tournament**
 Friday, June 23, 2000

Sunol Valley Golf Club, 6900 Mission Road, Sunol, California
 Sign in @ 10:30 a.m. Shotgun starts @ 12:30 p.m.
 Dinner & Awards Ceremony to follow.



Four Person Team Scramble Limited Availability Delicious Food Fun

To: _____

Thanks for your interest in this year's Golf Tournament! You and your teammates will be playing for "Bragging Rights" to say whether the North or South does it better. (Last year the North had a mighty showing!!) Get your team together today! It's all in the name of fun and to help raise money for ASHRAE Research and the Local Scholarship Fund. Maps and rules will be sent to your office for team distribution. Please ✓ which Team Package you would like to sponsor and fax or email this form in ASAP. Openings and time are limited!!

- "GOLD" Sponsor Package**
- ❖ Green fees and carts for 4 - foursomes
- ❖ 2 Tee-Sponsorships featuring your Company
- ❖ Awards dinner tickets for each player
- ❖ Golf Goodies

GOLD Package Investment: \$ 1,800.00

- "SILVER" Sponsorship Package**
- ❖ Green Fees and carts for 3 - foursomes
- ❖ 1 Tee-Sponsorship featuring your Company
- ❖ Awards dinner tickets for each player
- ❖ Golf Goodies

SILVER Package Investment: \$ 1,300.00

- "BRONZE" Sponsorship Package**
- ❖ Green fees and carts for 2 - foursomes
- ❖ Awards dinner tickets for each player
- ❖ Golf Goodies

BRONZE Package Investment: \$ 875.00

- Basic Team Package**
- ❖ Green fees and carts for 1 - foursome
- ❖ Awards dinner tickets for each player
- ❖ Golf Goodies

Basic Package Investment: \$ 440.00

Required Registration Information:

Team Captain(s): _____
 Sponsoring Company: _____
 Complete Mailing Address: _____
 Phone and Fax number: _____
 E-mail (if available): _____

Send complete teams list on a separate sheet of paper. ALL Team player names required by 6/19/00.

Single player:
\$ 115.00 each
Single Players will be assigned to a team.

Make checks payable to: Golden Gate ASHRAE.

Please Send all fees with a copy of your reservation to:
 Charlene Sturm c/o Air Treatment Corporation,
 1865 Pleasant Valley Avenue
 Oakland, CA 94611
 FAX your Reservations ASAP to: (510) 655-7966
 Or email to: csturm@airtreatment.com
 Questions: Call Charlene Sturm @ (510) 655-3990
 or Bob Polizzi @ (510) 293-1993

FINE PRINT: Sponsorships and Team reservations ONLY valid after receipt of your fees. No Refunds. Extra Dinner tickets available for \$20 each. All Sponsorship Signs featuring Company Name recognition will be professionally made by the golf committee. Artwork must be delivered to Air Treatment Corporation by 6/9/00.

Check here
For details on Sponsoring one of the two \$10,000 Hole-In-One Easy Money Holes or other fun Contests!

1999/2000 Committee Chairs

How do you turn a 20 hour task into a 10 hour task? Simple, your split the load between volunteers. These committees serve you the members, and we need your help to do the work. Contact a committee chair and offer your services or contact a Board member to fill a vacancy.

rev. 2/00

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