FOG DISPENSER

Golden Gate Chapter ASHRAE

VOLUME XXXVIII - NUMBER 2 NOVEMBER, 1999

Mr. Mark Modera from the Lawrence Berkeley National Lab/Aeroseal, Inc

DATE: November 4, 1999 meeting

TIME: SOCIAL HOUR: 17:30
DINNER: 18:30
PROGRAM: 20:00
ADJOURNMENT: 21:00

PLACE: **Pacific Energy Center**
851 Howard Street

Cost: **$35.00 Members and Guests**

All reservations must be received by Edgar De Guzman at **edeguzman@accoair.com** or fax to 650/594-4915, by Monday, November 1st.

If you need to cancel, please do so by Tuesday, November 2nd.

PLEASE NOTE: The parking lot directly across the street from the Energy Center is now closed. Parking is still available at the 5th and Mission Garage. Entrance on Mission and Minna Street.

Seal HVAC Duct Leaks from the INSIDE!!

Mark will be speaking to us about a new patented and revolutionary technology that will seal air leaks in duct systems from the inside of the duct.

According to Mark's research: Each year, U.S. residential and commercial duct leakage costs consumers some $5 billion - a loss equal to the annual energy consumption of 13 million cars. A typical house with ducts located in the attic or crawl space wastes about 20% of heating and cooling energy through duct leaks and draws approximately 0.5 kW more electricity during peak cooling periods. Studies indicate that sealing leaks could save close to one quadrillion Btu per year.

So What Does it Take to Run a Chapter?

Who would have thought that a person could spend an hour discussing the nuances of the actuator and keep a room full of engineers engaged? It sounds like a bad joke, but seriously our October 7th presentation by Werner Buck of Belimo Air Control USA was a surprisingly good evening. Ben Sun has hit the ground running as this year's Program Chair and President-Elect. From past Society President Jim Hill in January to future-Society President Bill Coad in February Ben's programs promise to be informative, interesting and well worth attending. He's even squeaked in a joint meeting with the San Jose Chapter in December, our first ever lunch meeting in January and a tour of the Monterey Bay Aquarium in May.

So what does it take to run the Golden Gate Chapter? It takes careful planning and coordination to put together a slate of 9 chapter programs for the year: you have to book the speakers, reserve the room, coordinate the announcements for the Fog Dispenser, coordinate reservations for the meetings, provide registration and other on-site logistics at the meeting, you have to take care of the speaker and their audio-visual equipment needs, sometimes you need to negotiate and deliver an honorarium, and always you need to write a letter of thanks.

To advertise the meeting you need a volunteer to coordinate communications with our 750 odd members — 15% of whom change their contact information in a given year. To keep the membership vibrant and growing you need student activities at local schools and universities to keep interest and lines of communication open with young people who have an interest in our industry. To communicate with these members we have a newsletter produced each month and a website that is updated every week.

To keep the Society active and relevant we need grassroots committees like Codes, Technical Energy and Government Affairs (TEGA) and Refrigeration to act as facilitators and liaisons between chapter members, industry and code authorities. These committees keep a bi-directional flow of experience and information that provides a service extending well beyond our Society's boundaries.

And finally to advance our industry we need research dollars that are solicited on an individual basis and through fundraisers like the annual chapter golf and tennis tournaments.

So what does it take to run a chapter? It takes a lot of dedicated people working for the betterment of their community. Last month I gave special thanks to Robert Marcial our chapter Webmaster, Debbie Marshall our newsletter editor and Charlene Sturm our golf committee chair. My few minutes at the podium is insufficient for the time I need to thank all of those dedicated volunteers who make our chapter work. The chapter truly appreciates you one and all.

This month's Fog Dispenser is dedicated to the memory of Tom White, chapter mentor and historian past, present and future. I recall Tom as the sharp-witted curmudgeon that stood up at each meeting to deliver lectures on our chapter's history. He was so squarely in his shoes that he could correct Carl Jordan without losing a beat. It is said that those who forget their history are doomed to repeat it. Without Tom's sagacity I fear our Chapter's doomed to a fate like Bill Murray's in the movie Ground Hog's Day.

It will come as no surprise to most of you that Tom authored our chapter's history, nor that he was integral in the development of our bylaws and selection of San Francisco as the 1998 Winter Meeting site. Tom passed away one month before he was to receive his Excellent Service Award from Society. This was an award that he well deserved: Tom spent a good part of his professional life and most of his retirement dedicated to making our Society and Chapter work for all of us. Take this opportunity to make Tom proud and volunteer a few hours to help keep his Golden Gate Chapter running. Your board is as close as a phone call away.

Respectfully Submitted,
Mark Hydeman,
President Golden Gate Chapter of ASHRAE

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.

Title	Name	Company	Address	City, State & Zip	Phone	Fax	Email	Liaison	Row
Region X DRC	Kent Peterson	P2S Engineering, Inc.	5000 East Spring Street, 8th Floor	Long Beach CA 90815-1275	562-497-2999	562-497-2990	kwp@p2seng.com	Mark Hydeman	1
President	Mark Hydeman	Taylor Engineering	1305 Marina Village Parkway	Alameda CA 94501-1028	510-749-9135	510-749-9136	mhydeman@taylor-engineering.com	Mark Hydeman	2
President-Elect/CRC Delegate/Chapter Programs	Benjamin Sun	Flack & Kurtz	343 Sansome St., #450	San Francisco CA 94104-1309	415-398-3833	415-433-5311	bpsun@sf.fk.com	Benjamin Sun	3
Treasurer	Joseph Olivier	ESS Engineering	114 Sansome St #1201	San Francisco CA 94104	415-296-9760	415-296-9761	jro@essinc.com	Joseph Olivier	4
Secretary/CRC Alternate	Kent Lim	Kent Man Lim & Company	1260 Egbert Ave	San Francisco CA 94124-3637	415-822-1232	415-822-6437		Kent Lim	5
Board of Governors/PAOE Chair	Ernie French	Norman Wright Equipment Corp	99a South Hill Drive	Brisbane CA 94005	415-467-7600	415-467-0900	efrench@norman-wright.com	Ernie French	6
Board of Governors	Edgardo De Guzman	Acco Inc	1700 Industrial Rd	San Carlos CA 94070	650-594-0182	650-594-4915	edeguzman@accoair.com	Edgardo De Guzman	7
Board of Governors/Roster Committee Chair	Robert Levi	Carrier Corporation	10810 Bigge St	San Leandro CA 94577	510-563-5713	510-563-5733	robert.f.levi@carrier.utc.com	Robert Levi	8
Membership Promotion Committee Chair	Ronald Eng	Carrier Corp	10810 Bigge Street	San Leandro CA 94577	510-563-5701	510-563-5733	ronald.eng@carrier.utc.com	Edgardo De Guzman	11
Student Activities Committee Chair	Robin James	Belimo Aircontrols	422 W. Seaview Dr.	Benicia CA 94510	707-745-5998	707-745-5999	rjames@belimo.com	Robert Levi	12
Historian	L L Gifford	PCL Construction Services Inc	1533 Pine St	San Francisco CA 94109	213-747-0734	213-747-0745		Ernie French	14
Refrigeration Committee Chair	Glenn Friedman	Taylor Engineering	1305 Marina Village Parkway	Alameda CA 94501-1028	510-749-9135	510-749-9136	gfriedman@taylor-engineering.com	Robert Levi	15
Research Promotion/ Honor Roll/ Product Show	Cory Palmer	Norman Wright Equipment Corp	99a South Hill Drive	Brisbane CA 94005	415-467-7600	415-467-0900	cpalmer@norman-wright.com	Ernie French	16
Technical, Energy & Government Activities Committee Chair	Gary Margadant		4042 Mt Veeder Road	Napa CA 94558	707-257-3351		gasm@napanet.net	Edgardo De Guzman	17
Newsletter Editor	Debra Marshall	Paco Pumps	845 92nd Ave	Oakland CA 94603-1215	510-639-3200	510-639-3337	dmarshall@flow-products.com	Kent Lim	18
Honors and Awards Chair	Gail Brager	University of California	232 Wurester Hall #1800	Berkeley CA 94720-1800	510-642-1696	510-643-5571	gbrager@socrates.berkeley.edu	Mark Hydeman	19

Website Chair	Robert Marcial	University of California CEDR	390 Wurster Hall	Berkeley CA 94720	510-849-9057		rmarcial@uclink4.berkeley.edu	Kent Lim	20
Database Chair	Allan Daly	Ove Arup & Partners California	901 Market St, Ste. 260	San Francisco CA 94103	415-957-9445	415-957-9096	allan.daly@arup.com	Kent Lim	21
Codes Committee Chair	Dick Glumac	Glumac & Associates	275 Battery St Ste 220	San Francisco CA 94111-3330	415-421-1164	415-398-0596		Robert Levi	22
Attendance Committee Chair	Richard Charles	C & B Consulting Engineers	150 Spear St Ste 500	San Francisco CA 94105-1537	415-442-0110	415-882-7747	rac@cbengineers.com	Edgardo De Guzman	23
Auditing Committee Chair	TBD Vacant							Joseph Olivier	24
Tennis Committee Chair	TBD Vacant							Joseph Olivier	25
BAEC Committee Chair	Thomas Reinarts	Keller & Gannon	PO Box 422430	San Francisco CA 94142-2430	415-621-1199	415-864-3681	tom.reinarts@keller-gannon.com	Mark Hydeman	26
Golf Committee Chair	Charlene Sturm	Air Treatment Corp.	1865 Pleasant Valley Ave	Oakland CA 94611-4210	510-655-3990	510-655-7966		Joseph Olivier	27
Marbles Game Committee Chair	Leslie Hanohano	Norman Wright Equipment Corp	99a South Hill Drive	Brisbane CA 94005	415-467-7600	415-467-0900	lhanohano@norman-wright.com	Edgardo De Guzman	29
Publicity Committee Chair	Mike Scofield	Conservation Mechanical Systems	10943 Cherry Ridge Rd	Sebastopol CA 95472-9645	707-829-2080	707-829-3142	cmscofield@aol.com	Mark Hydeman	32
Reception Committee Chair (Membership Vice Chair)	Jeff Dittman	Glumac International	275 Battery, Suite 220	San Francisco CA 94111-3330	415-398-7667	415-398-0596	j.dittman@glumac-sf.com	Robert Levi	33
Redwood Empire Section President	Patrick Bailey	Geopraxis Inc	461 Seventh St Ste 1	Sonoma CA 95476-5976	707-996-9408	707-939-8702	pbailey@geopraxis.com	Mark Hydeman	34
Seminar Committee Chair	Luek Vaneveld	Taylor Engineering	1305 Marina Village Parkway	Almeda CA 94501	510-749-9135	510-749-9136	lvaneveld@taylor_engineering.com	Edgardo De Guzman	36
Weather Data Committee	Nenad Saric	ATI Engineering Services	3860 Blackhawk Rd Ste 160	Danville CA 94506	925-648-8800	925-648-8818	nsaric@atiengineering.com	Kent Lim	37
Golf Co-Chair (next year's chair)	Robert Polizzi	California Hydronics Corp	2293 Tripaldi Way	Hayward CA 94540	510-293-1993	510-293-3080	bpolizzi@calhydro.com	Joseph Olivier	38

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

Meeting Minutes: October 7, 1999
ASHRAE, Golden Gate Chapter

Place: World Trade Center/SF

Attendees: 68 Members, 7 Cal-Poly Students, 2 Cal-Poly Faculty Members, 1 UC Berkeley Staff, 2 from Carrier Corporate Office, Cindy Calloway from Regional Refrigeration Chair, Werner Buck, Guest Speaker

Announcements:

1. Dinner Voucher – Ben Sun explained how it works: the cost is $270 for nine meetings, including field trips and it is transferrable.
2. Program – Ben Sun went over the upcoming programs in the Fog Dispenser. The topic for November's program will be on "Sealing Ductwork from the Inside" by Lawrence Livermore Lab. December's program will be a joint meeting with the San Jose Chapter at The Marriott/San Mateo. January's program will be by Jim Hill on "Green Building".
3. Two-income families is the main reason for lack of participation in our Chapter.
4. Research Fund – Bob Levi thanked everybody in the Chapter for their support. The Chapter received a full circle patch from National and it will be put on the Chapter banner.
5. Roster – We need volunteers!! (To improve time, everyone make sure the information is updated on the data base.)
6. Student Activities – Robin James thanked all the students and faculty from Cal-Poly. She also mentioned the ASHRAE 2000 Student Design Competition and Undergrad Senior Grant for those who are interested.
7. Weather Data Committee is Nenad Saric.
8. Website Chair – Robert Marcial encouraged everybody to use the Internet for information.
9. Fog Dispenser – Debbie Marshall needs help to work with her this year and take over next year.
10. Golf Committee – Charlene Sturm needs someone to replace her next year. Looks like Bob Polizi will be taking over.

Edgar DeGuzman thanked Carl Jordon, Robin James, Debbie Marshall, Karl Guttman, Ben Sun, Dart Reinfort and Syserco for sponsoring students.

Raffle: Ben Sun won the marble draw in the amount of $600 and will donate $300 to Research. Thank you, Ben!!

October 13, 1999 Board Meeting

Mark Hydeman recommended that we donate the surplus funds and it was approved as follows:

$1,500 to Don Bryant Scholarship Fund
$1,500 to ETAMS
$2,000 to Research

Respectfully Submitted,
Kent M. Lim
Secretary

A Synopsis of Actuation
GGC Chapter Meeting, October 7, 1999

Werner Buck, President of Belimo Aircontrols (USA), Inc. was the guest speaker for the October Ashrae Meeting. Werner discussed the "Future of Actuation" for damper and valve actuators. In the future the main advances that will come will be with the electronics and functionality of the actuator. Werner showed the different motors that have been used in the past then discussed the advantages of the brushless DC motor when controlled by a microprocessor and ASIC. With the new brushless DC motor technology you can create a multi-functional actuator which can be programmed by a hand held tool or your laptop. This new actuator will provide more flexibility and functionality for the customer in the future.

Werner also discussed the ball and globe valves of the past and where we are going in the future. He demonstrated that by using a characterized disc you could improve the controllability of a ball valve and get Equal Percentage Control. This Characterized Ball Valve will be the valve of the future and replace many of the current Globe Valve applications. He also showed the future of valve retrofits by demonstrating how a self-stroking valve would work to reduce costs when retrofitting existing valves.

Interoperability was discussed on how different DDC Systems could communicate. In the near future the actuator will not be a LON or BACnet device but will be able to communicate with those devices. As the industry changes this may also change.

ROSTER

Your Board of Directors is determined to improve the quality of the 1999-2000 Roster. Therefore we are starting early to work on it.

You will be offered the opportunity to include your company "non-advertisement" for a donation. The prime locations (back cover, inside back cover, inside back page) will be available to the highest bidders. Watch this column for details.

Do your part right now by making sure 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 (http://www.ashrae.org). Society's database information will be used for the Roster, so it's up to you to be sure that it is correct.

We welcome your ideas and comments for the Roster. Please contact Bob Levi at 510.563.5713 or via e-mail: robert.f.levi@carrier.utc.com.

RESEARCH PROMOTION – NOVEMBER 1999

Last year, our Chapter enjoyed huge success in our Research Promotion campaign. Bob Levi deserves a thank-you from each Chapter member for his time and hard work. Now it's time to focus on our Research goal for 1999-2000.

This year's goal for our Chapter is over $36,000.00! We're off to a great start. Thanks to the support of the Chapter Board, we will receive the "Full Circle" award (when every member of the Board contributes at least $100 to ASHRAE Research).

Honor Roll for Research begins at $100 for personal contributions and $150 for corporate contributions. As of 10/15/99, we have received the following Personal Honor Roll contributors:

Herb Duncan
Mark Hydeman
Bob Levi
Cory Palmer
Edgar DeGuzman
Ben Sun
Ernie French
Joe Olivier
Kent Lim

I realize the importance of personal contributions in this year's Research campaign, and would appreciate the Chapter's support as we seek increased corporate contributions. As a reminder, investing in ASHRAE Research is an investment in our industry and 100% tax deductible.

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

Due to time constraints and an extra heavy work schedule this month, the photo spreadsheet for this issue will be presented in the next issue with next month's. Also, the Redwood Empire Golf Tournament pictures will be in the next edition. I apologize for the omission.

Fog Dispenser Deadlines

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

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

FOG DISPENSER
Debbie Marshall, Editor, PACO Pumps
845 92nd Ave, Oakland, CA 94603
Telephone 510/639-3200. Ext. 232
Fax 510/639-3337
email dmarshall@flow-products.com

Photojournalism Editor: Mike Scofield

Refer prospective new members to *Membership Chair:*

Ronald Eng……510/563-5713
FAX…… …….510/563-5733

For Roster corrections and address changes contact:
1/800/5ASHRAE

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

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Mark Hydeman……...…..…….President
Ben Sun……President Elect
Kent Lim ……..……..Secretary
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Ernie French, Edgar DeGuzman, Robert Levi

Employment Opportunities

OUR SUCCESS IS BUILT ON YOUR TALENT……Guttmann & Blaevoet is a well established SF consulting engineer firm serving premier architects & building owners. We are seeking an articulate graduate mechanical engineer, preferably with several 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. Fax your resume to: 415-512-8784 or email to g&b@gb-eng.com.

AUTOCAD DRAFTER/DESIGNER

Stable, professional, Napa Valley engineering firm seeks competent teamplayer to draft/design w/engineers. Highly skilled in AutoCad 14.0, Windows NT, Word & Excel. HVAC & plumbing design experience a plus. Superb interpersonal skills are necessary to succeed in this respectful, friendly work environment and to interact with clients. Continuing education is encouraged. Excellent benefits. Resumes: The Personnel Perspective, 575 W. College, Santa Rosa, CA 95401. FAX: 707-576-8190. Email: tpp@sonic.net.

SENIOR MECHANICAL ENGINEER

Enjoy a terrific opportunity while working in the beautiful Napa Valley! A well established, professional engineering firm seeks a high level professional to lead their staff. This licensed Professional Engineer will have major design responsibilities as well as overall supervision for a staff of 6 – 8 engineers and designers. Superb interpersonal skills are necessary to interact with clients and contractors in the field. 5+ years of experience in the design of HVAC and plumbing for schools, hospitals and large commercial buildings is desired. Generous benefits and a friendly, respectful work environment provided. Resumes: The Personnel Perspective, 575 W. College, Santa Rosa, CA. 95401. FAX: 707-576-8190. Email: tpp@sonic.net.

HVAC Designer for Moraga Consulting Firm. Must know AutoCad. Minimum 5 years experience. Possible part time. (925) 631-0290.

Senior Mechanical Engineers, Designers, and CADD Operators

ATI Architects and Engineers, one of the Bay Area's fastest growing companies, is looking for talented and qualified candidates for Senior Mechanical Engineers, Designers, and CADD Operators. Qualifications for the engineer include a minimum of 5 years experience in design, P.E. and AutoCAD 14 proficiency are highly desirable. Designers and CADD Operators must be AutoCAD 14 proficient. ATI offers an excellent working environment, long term stability, unlimited career growth and an excellent compensation package. Please fax to 925-648-8811 or email to gkam@atiae.com or send to ATI, 3860 Blackhawk Road, Danville, CA 94506.

Mechanical Designers and Engineers

Knight Advanced Technology, a national practice of architects, engineers and planners, has immediate openings for both Senior Mechanical Engineers and Mechanical Engineer/Designers.
Knight provides state of the art engineering/architecture services to the High Tech, Science and Research communities and is seeking highly motivated, driven individuals who aspire to the highest engineering standards. The Senior Engineers are required to be registered and have at least 10 years experience. The Engineers/Designers should have 3 to 8 years of experience AutoCAD knowledge and experience is desirable. Please send resume to Mike Hammarstedt, Knight Advance Technology, PO Box 422430, San Francisco, CA 94142 or mike.hammarstedt@knightat.com.

Student Activities Corner

I'm looking forward to another great year of Student Activities. There will be a lot of opportunities throughout the year to introduce students to our organization and the different career paths available within the Heating, Ventilation, Air Conditioning, and Refrigeration Community. I am looking for some volunteers to join the Student Activities Committee. If you are interested please conact me at (707) 747-0835 or rjames@belimo.com <mailto:rjames@belimo.com> .

To start the year ASHRAE is having a 2000 Student Design Project Competition. The 2000 competition focuses on the design of a two-story building to be constructed on a college campus in Greenville, South Carolina. The original drawings and complete project information can be easily downloaded from the 2000 Student Design Project Competition found under the Student Activities Section of the ASHRAE Home Page at www.ashrae.org <http://www.ashrae.org> . A hard copy can be obtained if you don't have access to the Internet. Project judging will begin in May 2000.

ASHRAE Announces Funding for Undergraduate Senior Projects or Technical School Projects:

The Undergraduate Senior Project Grant Program provides grants to engineering, technical and architectural schools worldwide with the goal of increasing student knowledge, learning and awareness of the HVAC&R industry throughout the design and construction of senior projects. Grants are to be used to fund equipment and supplies for engineering or architectural senior projects and 2-year technical school projects, which could mean up to $5,000 in aid. Application must be received at ASHRAE by December 1st from a faculty member. For more information please contact Robin James at rjames@belimo.com <mailto:rjames@belimo.com> or (707) 747-0835.

Mark your Calendars for these upcoming programs:

Month	Program
November 4,1999	Seal HVAC Duct Leaks from the Inside
December 2,1999	Joint meeting with San Jose Chapter in San Mateo Marriot. Fundamental perspective on Chilled Water system
January 6 ,2000	Thermal Engineering and the Human Body
February 3,2000	Green Building Research at the NIST Or Web Based O & Manuals
March 2,2000	Whining in the office?
April 6, 2000	Product Show
May, 2000	Field Trip Monterey
June 1, 2000	VAV System Design: Problems and Opportunities

Some programs may change due to the availability of speakers.

A Chance to Win!!!

For those of you who purchased the meal voucher for the 1999-2000 meetings, I have very good news for you! Your name has been entered into the Meal Voucher Sweepstakes. The top prize is a 3 day trip for two to Las Vegas NV.

The prize has been generously donated by Norman Wright Equipment Company who wants to encourage your participation in ASHRAE. People who purchase the Meal Voucher before the November 4 meeting will also be entered into the Sweepstake.

Right now, you have a better than 1 in 10 chance of winning the trip.

So, WHO is NEXT?

• **NORMAN WRIGHT MECHANICAL EQUIPMENT CORPORATION**

san francisco ♦ santa clara ♦ santa rosa