

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 10^{100} 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 10^{100} zeros? To fathom this I tried a quick mental calculation: From Avagadro's theorem I knew that there are 6.023×10^{23} atoms in a gram of hydrogen. Rounding this to 10^{24} , I attempted to grasp the number 10^{100} by imagining Avagadro's number to the forth power: $\sim 10^{24}$ atoms in a gram, $\sim 10^{24}$ grams in a star, $\sim 10^{24}$ stars in a galaxy, $\sim 10^{24}$ 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.**

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
Newsletter Editor Co-Chair (next year's editor)	Rachel Bannon	UC Berkeley – Student		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	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	lhanoano@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

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.

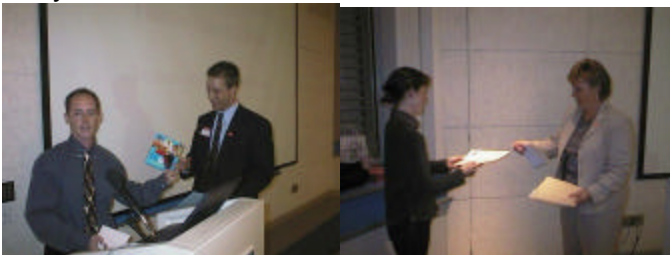


Ben Sun will be President
Joe Olivier will be President Elect
Edgar DeGuzman will be Secretary
Bob Levy will be Treasurer

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

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

Bevilacqua-Knight, Inc. (BK*i*) has an immediate opening for an engineer with 5+ years of experience in the buildings and process energy efficiency field. BK*i* 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 BK*i* engineer and graphics designer.

BK*i* 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.



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).

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> 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.

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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.

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.

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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

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: _____

S 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

It Was a Night of Excitement





**ASHRAE
Honor Roll**



TEMPCO EQUIPMENT COMPANY, INC.

Manufacturer's Representative of Quality HVAC Products - Established 1964

Air Handling Units; Standard or Customized, **Fans**; Centrifugal, Propeller, Axial, Roof Exhaust, **Rooftop Package Units**; 2-500 Tons Standard or Custom, **Fan Coils**, **Air Distribution Products**; VAV Boxes, Grilles, Registers and Diffusers, **Dampers**; Fire/Smoke, Control, Backdraft, **Humidification** and **Dehumidification Products**, **Fume Hood Face Velocity Controls**, **Noise Control Products**, **Computer Room Air Conditioning**, **Make-up Air Units**, **Retrofit Equipment**.

SAN FRANCISCO OFFICE 100 North Hill Drive, #12 • Brisbane, CA 94005-1010 • Phone (415) 467 - 8680 • Fax (415) 468 - 4159

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

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