

FOG DISPENSER

Golden Gate Chapter



ASHRAE

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FEB 2007

February Meeting Details

This dinner meeting is on the *first* Thursday of the month.

Date: Thursday, Feb 1, 2007

Place: Scott's Seafood, Jack London Square
2 Broadway, Oakland, California 94607
510-444-3456

[Map and directions](#)

Schedule:

- 5:30 PM: Registration and social hour
- 6:30 PM: Dinner with announcements and introductions
- 7:45 PM: Break
- 8:00 PM: Speaker presentation
- 9:00 PM: Adjourn

Cost:

	Before noon Mon., Jan 29	After noon Mon., Jan 29
ASHRAE members	\$40	\$47
Non-members	\$47	\$50
Students	Free with registration	
Voucher holder	Free with registration	

Please make your reservation via our Web site. Visit the Event Calendar at www.ggashrae.org/calendr.htm, click February 1, and fill out and submit the form. Purchase your voucher at the meeting or online using your credit card and PayPal after you submit the form. The season voucher is \$320 for members; that's 9 meetings for the price of 8. The voucher is transferable among co-workers and may be used for student sponsorship.

Remember – if you make a reservation and cannot attend, you need to cancel in advance, or you will be billed. Scott Wayland will be taking reservations. If you need to CANCEL, please send a message to Scott at cancellation@ggashrae.org.

February Program

HVAC Title 24 Requirements: Now and 2008



Charles Eley
Architectural Energy Corporation

The California Energy Commission (CEC) will adopt revised Title 24 Energy Standards in early 2008. Mr. Eley will review upcoming changes to the California building energy efficiency standards and discuss how the standards are a key element in California's energy policy. The new Standard is scheduled to take effect in 2009. Charles will focus on revisions to the Standard that will affect the work done by mechanical engineers. Get a preview of what you will need to know and do to meet the new code.

Biography of Speaker on page 3.

Golden Gate Chapter President's Message, February 2007



Your first 100-days

Why create a plan? Obviously, to get there. Where is “there” for you. If there is anywhere, then any path will get you there.

Engineers dream of a better life, a better society, a better building design, and a better business. What are your dreams? Sustainability? Wealth? Recognition among your peers? How do you propose getting to your dream?

Politicians are expected to realize their campaign dreams. They do so by implementing laws, taxes and justice. The first 100-days of an elected official’s term is their chance to lay out their term in office. The rest of their time is taking actions to realize the dreams they create during their first 100-days.

Your life is your term in office. What can you do in your next 100-days to make your life’s dreams come true? This life is not a dress rehearsal, it is your only one, make it real.

Any of these dreams ring a bell with you?

I want to run my own company. If you have been in the industry for more than 10-years and haven’t done this, then who are you fooling? If you want to be in business, take the next 100-days to create your business plan. Do you have your license? Do you have your family’s support? Do you have a banking relationship, insurance contacts and advisors in business? Customers and employees are the easy part. Getting going is the hard part.

I want my boss’s job. Someone once told me a job I wanted was mine, *if* I was the right person for the job. Have you figured out how to get your boss promoted so the opening is there? Have you been doing the job required to show you are ready for the position? Are you excelling in what you do now? Are you profitable in your tasks? Are you creating infrastructure necessary to leave your job to someone else? Are you doing things to be recognized by management and your peers like getting involved in ASHRAE?

I want to work less and make more money. This is everyone’s dream. I don’t think Donald Trump works fewer hours than you do. But that doesn’t mean it is impossible. Start investing in buildings that will generate your income latter in life.

I want to be famous. This is within reach in our industry. Start writing articles. Participate in ASHRAE both on a local and national level. Become a speaker at industry events. Don’t wait until the plan is perfect to start. Make the commitments to present seminars even if you don’t have your talk written. Pick the topic and start with an outline. Once the date and time are established, your commitment will motivate you with more urgency that trying to write a presentation ahead of time.

Some day when you are 80-years old looking back on your life I hope you don’t regret the things you never tried. Looking back you’ll know it was better to have tried and failed than never to have tried at all. What are your dreams? Decide and use the next (first) 100-days to create your road map. You will not regret it.

We look forward to seeing you at our February dinner meeting in Oakland at Scott’s Seafood, Jack London Square. The presentation by our old friend Charles Eley, Architectural Energy Corporation, is “**HVAC Title 24 Title 24 Requirements: Now and 2008.**” Find out the future of the California Energy Code from its creator.

Respectfully submitted,
[Glenn Friedman](#), Chapter President

ASHRAE Research Report

Fahad Rizqi, Resource Promotion Chair, Golden Gate ASHRAE

To everyone that wants to donate to ASHRAE Research, I look forward to talking with you. Remember, all donations are tax deductible, and you may use a check or credit card. Now you can make your donation online at <http://www.ashrae.org>.

The database issues are still being resolved at the ASHRAE head office in Atlanta. I apologize if you have donated and your name does not appear on the table cards. While this issue is being resolved, please let me know when you do make a donation and I will make sure your name is on the table cards.

See you at the next meeting!!!

Fahad Rizqi, fahad.rizqi@siemens.com, 510-723-7833

February Program Continued – Speaker Biography

Charles Eley

Charles Eley, FAIA, PE is an architect and mechanical engineer with 25 years experience in energy efficient and sustainable design. Mr. Eley was the prime contractor to the California Energy Commission (CEC) for the 1992, 2001, and 2005 updates to the California building energy efficiency standards (Title 24). He is currently working with the CEC for the 2008 update. In addition to California, Mr. Eley has made significant contributions to energy standards in Hawaii, Guam, Samoa, Palau, Australia, Hong Kong, and India. Mr. Eley is the technical editor and author of the ASHRAE User's Manual for Standard 90.1, the Advanced Lighting Guidelines, the CHPS Best Practices Manuals, and numerous other technical documents. He is vice president of Architectural Energy Corporation, with offices in San Francisco, Boulder and Chicago.

Marble Draw

Congratulations to Wasil Popow who was the winner of the \$500 Marble Draw pot at the January Meeting. Wasil has generously donated \$200 to ASHRAE research. Thanks again to Siemens for sponsoring the Raffle at the January meeting. The pot for the February meeting is \$500.

Chapter Technology Transfer Committee (CTTC)

Scott Wayland, Golden Gate ASHRAE Technology Transfer Chair

www.ashrae.org/cttc

<http://ggashrae.org/cttc>

2006/2007 Technology Awards

The Technology Transfer Committee would like to encourage all members to consider participating in the Technology Awards this year. **Entries must be submitted to the Golden Gate CTT Committee by February 28th 2007.**

There are three stages of competition and awards: Chapter, Region and Society. The first step in this process is to submit your project to the chapter level competition.

First place winners from the Chapter competition move onto the Region X Award Competition. Then the Regional first place winners are eligible to move onto the Society competition.

Every year ASHRAE conducts the Technology Awards program to:

- Recognize ASHRAE members who design and/or conceive innovative technological concepts that are proven through actual operating data;
- Communicate innovative systems designs to other ASHRAE members;
- Highlight technological achievements of ASHRAE to others, including associated professionals and societies worldwide, as well as building and facility owners.

Each year Society presents awards in some of the thirteen categories: Commercial Buildings (New and Existing); Institutional Buildings (New and Existing); Health Care Facilities (New and Existing); Industrial Facilities or Processes (New and Existing); Public Assembly (New and Existing); Residential (New and Existing); Alternative or Renewable Energy Use.

For each category a first, second, and honorable mention winner may be named. Also, one of the category first place winners may be selected to receive the ASHRAE Award of Engineering Excellence. The recipient will have demonstrated the best overall compliance with the judging criteria.

Society's bar is set pretty high for the awards as indicated in the very short list of awards from the last few years.

The submitted project should be completed and occupied for one year by the due date for the Society award application - September 2007. Therefore, your project should have been occupied by September 2006. By that time there should be good measurement and verification data available. This is not a requirement for the Chapter award but it is a strong suggestion. This is a requirement for the Society award competition.

Please see our CTTC website or the following links for more info:

<http://www.ashrae.org/publications/detail/14703>

<http://www.ashrae.org/publications/detail/14692>

<http://xp20.ashrae.org/STANDCOM/ShortForm.pdf>

<http://resourcecenter.ashrae.org/store/ashrae/newstore.cgi?categoryid=1174&loginid=10995378>

Contact Scott Wayland and the Chapter Technology Transfer Committee regarding submitting at 510-508-2244 or at sewayland@comcast.net

Minutes of Golden Gate Chapter Meeting—January 11, 2007

Carnelian Room, San Francisco

- Glenn Friedman, Chapter President, called the meeting to order at 12:00 p.m.
- Self introductions.
- Announcements and administrative discussion
 - Minutes of the December 2006 joint meeting were approved.
 - Scott Wayland, CTTC Chair.
 - Kristin DeMartini, Membership Chair.
 - Thanks to Carl Jordan, and welcome to Tom Gilbertson – old/new chapter historians.
 - Glenn encouraged new committee and board members.
- Five minute break.
- Robert Marcial introduced the speakers for the main presentation: Vic Congi and Bill Jeffrey.
- Main presentation: How to Protect Yourself from Being Involved in a Problem Project: A Balancing and Commissioning (Cx) Perspective.
- Marble draw raffle.
- Next meeting: 5:30 PM, Thursday, February 1, at Scotts Seafood, Oakland. Topic: HVAC Title 24 Requirements: Now and 2008. Charles Eley, Architectural Engineering Corporation.
- Motion to adjourn the meeting at 9:00 p.m.

Jeff Blaervoet

Announcement

Old ASHRAE Handbooks

Do you have ASHRAE handbooks (dated 2000 or later) on your shelves that you don't need? Past Golden Gate Chapter President Ben Sun is organizing a campaign to collect unused handbooks and ship them to developing countries. The handbooks will be distributed to engineering students as they do not receive the yearly handbook. This year the books will be shipped to India and Sri Lanka.

Bring your handbooks to the next ASHRAE meeting. Financial contribution to cover the shipping cost is also needed.

Thank you for your help.
Handbooks will be shipped off in February.

Ben Sun
Benjamin.Sun@sf.fk.com

Employment Opportunities

Engineer/Senior Engineer

kW Engineering Inc. is an independent provider of energy engineering services specializing in assessments of energy savings potential in commercial, industrial, and institutional facilities. As the energy efficiency industry continues to expand, we are able to offer many opportunities to work on interesting projects in PV, retro-commissioning and energy audits.

We are seeking entry to senior-level Engineers to join our team in Oakland, Long Beach and Salt Lake City. If you have a strong interest in the energy efficiency field, this could be the right place for you.

We are looking for self-motivated people willing to accept responsibility for a wide range of projects. Learn from and collaborate with an experienced staff committed to saving energy in buildings and industrial processes. Sr. Engineers must have 3 or more years of experience, including DOE-2, and M&V. Experience with utility incentive programs and/or a P.E. are pluses. Excellent opportunity at the entry levels to obtain P.E. or EIT. We offer flexible work hours, hands-on experience, and a creative, casual work environment.

Please submit resume, cover letter and salary requirements to:

kW Engineering, Inc.
287 17th St. Suite 300
Oakland, CA 94612
Job Code: KWESEASH
Email: hr@kw-engineering.com
or fax: 510-834-6421

Chapter Historian's Article

Tom Gilbertson

Looking through the 1939 Heating, Ventilating, Air Conditioning GUIDE...published by the then "American Society of Heating and Ventilating Engineers"...(The copy of the 1939 GUIDE was in the material that was turned over to me)... we were not quite ASHRAE yet, you began to realize just how much change has gone on in this business; as well in the United States, and the World.

The "GUIDE"...which basically told you how to **do** heating & ventilating, as well as try and do air conditioning...(note that was two words then...no dash)...and the GUIDE contained a complete list of all of the members in 1939, and told you when they joined ASHVE. San Francisco with its Golden Gate Chapter in San Francisco had 34 resident members, Oakland 5, and Berkeley, 8! The names call up a certain history of the business in the Bay Area..."E. B. Ward for Carrier, George Simonson, Tom's dad, A. J. Bouey...of walnut dryer fame, Ed Simons, for refrigeration, Tom White for Sturtevant Fans, Lex Cochran and Frank Hook for temperature controls...make that Minneapolis-Honeywell Regulator, and Johnson Service Company, and Neil Peterson the Trane Agent. What a time these early entrepreneurs must have while wrestling each other trying to make a buck!

Reading this you might wrinkle your nose and say, "What's a big deal about a walnut dryer?"...Well, up until the late 1930's walnuts had a short shelf life because the oil in the nut would be rancid, and the nuts could not be stored for any length of time. Enterer a fellow named Gauthier who determined that "heating" the nuts caused the oil in the meat to polymerize, and extend the shelf life of the nut crop to several years. James A. Nelson Company of San Francisco built over 180 of these forced air, oil-fired, and later natural gas-fired dryer assemblies, each about a city block long, with hundreds of sheet metal bins, each 8-ft square, and 12 ft high, to process California's large nut crop, and to keep the wheels of commerce rolling. Each walnut dryer had multiple fans, heating control and fuel burning equipment. In 1939 the computer room raised-floor job and VAV Systems with VFD's and DDC Systems simply did not amount to much! The 1939 GUIDE has a Table for the time and temperature to dry materials...and

“walnuts” are right there in Table 3 on page 676 at “100 F for 24-hours”! That was no mean trick to perform with out over heating! ASHVE was busy improving the quality of life by extending food storage times, and making better products.

The walnut dryers led James A. Nelson Company to the licorice business, and they eventually built licorice drying tunnels at 4 plants, including the largest licorice plant in the world, at Union City, CA with over 7 acres under one roof, and 141 tunnels most of them over 95 feet long. We do all love those “red twists” and “vines”...especially the dentists!

The Bay Area was full of applications of the ASHVE-technology that kept people busy, and made improvements in the quality of the products. For example, Louis Martini winery using ice storage in 1948 to control the fermenting temperature of the red wine. Louis used two, 1915 vintage ammonia compressors with flat belts (no belt guards) to produce ice in a concrete tank, and a spiral heat exchanger to separate the must from the ice water, and manually operate the system to keep the fermentation from over-heating. This system was still in operation in 1983.

Then Jay Benoit in Santa Rosa used the old Santa Rosa Ice & Cold Storage railway ice plant to produce the 33 F supply air temperature to store the Bartlett pears until the canneries’ could have the capacity to process that fruit...try making a “33 F air temperature” without freezing a coil...using refrigerant in the coil... ASHVE technology triumphs again!

The development of the refrigerated rail car was a product of the Bay Area. “PFE...make that Pacific Fruit Express in Santa Rosa, was the home of the activity that put mechanical refrigeration in each car, and eliminated the manual icing of rail cars, that I saw as a boy in Iowa. Men taking 300-pound blocks of ice that had been cut from the ice on lakes in the winter out of a saw dust insulated ice house the size of the old San Francisco Armory...first delivering these 300-pound blocks to a crusher on a wheelbarrow, and capturing the crushed ice back into their wheelbarrow, and making their way down a string of refrigerated rail cars on the narrow walks on the cars roof...balancing the wheelbarrow to carefully dump the ice into the bins. OSHA would never have recovered if they would have seen this!

The story of the refrigerated rail cars ends with the sale of a 450-car order for the nominal 50-ton refrigeration system in each car, a huge order for equipment. The manufacture who happened to receive that order suffered a 100% failure of their systems. (Bumping along on the rails and sustaining all of the jolts is tough duty if you have not experienced the learning curve!) The situation culminated with the Chairman of Southern Pacific Railroad personally calling the Chairman of the refrigeration compressor supplier where he outlined the situation, (100% failure) and then ask the other Chairman....”Just what are you going to do about it?”...The compressor manufacturer’s Chairman had the great response...he said “We are going out of the refrigerated rail car business!”...and hung up!And they did!

Back in 1939 with the Nations economic activity not enjoying computers, cell telephones, gene research, jet air craft, television, software, and all of the drug and medical research activity, the areas for engineers to focus upon was quite limited, and with the Federal Minimum Wage at \$0.25 per hour...(and lots of folks not making that because workers in union apprenticeship programs, farm workers, family-employed workers, and seasonal workers, etc. were exempt)...ASHVE technology took on a higher visibility as the Nation was growing up.

Respectfully submitted,

Tom Gilbertson, Chapter Historian

2006 - 2007 Event Calendar

<i>Date</i>	<i>Venue</i>	<i>Presentation Topic</i>	<i>Speaker(s)</i>
Thursday, Feb 1, 2007 Dinner & Student Night	Scott's Seafood, Oakland	HVAC Title 24 Requirements: Now and 2008	Charles Eley Architectural Energy Corporation
Thursday, Mar 1, 2007 Dinner with Redwood Empire Section	Embassy Suites, San Rafael	DDC Controls	Jay Santos, Facility Dynamics
Thursday, Apr 5, 2007 Dinner & Student Night	Pacific Energy Center, S.F.	Awards Night and Vendor Showcase	Vendors and Award Winners
Thursday, May 3, 2007 TBA	Annual Field Trip	TBA	TBA
Thursday, Jun 7, 2007 Dinner & Spouse & Significant Other Night	Carnelian Room, S.F.	The Asian Century: Current Economic Development and Its Impact on Global Energy	Clark Bisel Flack & Kurtz (S.F.)

TBA = To Be Announced

Visit <http://www.ggashrae.org/calendr.htm> for updates, presentation summaries, speaker biographies and to register for the meetings. If you have suggestions for meeting topics, please contact Robert Marcial at rmarcial@pacbell.net

Change of Address?

All members who wish to make changes in their membership data (change of email address, change of address or change of employer are the most common) must make those changes through the national ASHRAE site <http://www.ashrae.org>.

THE GOLDEN GATE CHAPTER CANNOT MAKE THESE CHANGES FOR YOU

In order to change your membership data, you will need your ASHRAE member number and confidential PIN number, both of which are on the ASHRAE card issued to you each year. Go to the Change of Address link of the ASHRAE website, log in, and then go to Membership Records. If you don't have your PIN or membership card, please call Customer Service: 1-800-5-ASHRAE (US and Canada).

Photos from the January 2007 Golden Gate Chapter ASHRAE Meeting



Left: Glenn Friedman and Gary Harbison



Right: Guest Speakers Bill Jeffery and Vic Congi



Left: Patrick Thomas and fellow attendee await main presentation.



Right: Vince Aiello and Gina Khalil.



Left: Cory Palmer and Jay Patel



Right: Elton Yuen, Angie Chang, Chris Nguyen



Left: Carl Speck and Kristin DeMartini



Right: Two attendees enjoying their lunch.