

FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XLVIII - NUMBER 1

October 2009

October 2009 Meeting

Date: Thursday, Oct 15, 2009

Place: Scott's Seafood, Jack London Square, Oakland
[\(directions\)](#)

Schedule:

- 5:30 pm Registration and social hour
- 6:30 pm Dinner with announcements and introductions
- 7:45 pm Break
- 8:00 pm Main Program
- 9:00 pm Adjourn

Cost:

	<u>Before 3pm</u> <u>Fri., 10/9</u>	<u>After 3pm</u> <u>Fri., 10/9</u>
<u>GG-ASHRAE members</u>	\$40	\$50, but please register
<u>Non-GGASHRAE members</u>	\$50	\$55, but please register
<u>Students</u>	Free but please register	
<u>Voucher holder</u>	Free but please register*	

**Vouchers are available on an individual basis only for \$320. That's 9 meetings for the price of 8!*

Please make your reservation at www.ggashrae.org/meetings/2009-2010/oct.htm

NOTE: If you make a reservation and cannot attend, you need to cancel in advance, or you will be billed. Isabelle Lavedrine will be taking reservations. If you need to CANCEL, please send a message to Isabelle at cancellation@ggashrae.org.

Emerging Infectious Diseases during Healthcare Construction



Speaker: Marlene Linders, ASHRAE Distinguished Lecturer; Childers Group International; Heathrow, FL

Speaker Bio: Ms Linders is the President and CEO of **PHILDERS GROUP INTERNATIONAL INC**— Infectious Disease, and Risk Management Consultants; providing consulting services, education, and corporate risk management programs for Infectious Disease to architects, engineers, HVAC, Contractor and health care industries. They work with clients as a medical resource, provide ongoing education and compliance programs, and assist clients to function at lower liability and manage risk.

She has several years of extensive expertise in development and understanding of construction and design for building systems. She has worked on designing high-risk environments as Surgical Suites, Transplant, and Teaching Hospitals. Her expertise is in Environmental Epidemiology, Indoor Air Quality, Infection Control and the impact it has on Occupant/Patient Health.

Ms. Linders is a Registered Nurse, architect, and holds a Master's degree in Science. Her former company, PLI Inc, wrote the first IAQ online curriculum course for the University of Florida Rinker School of Construction.

Continued on next page

She is also the Executive Director for **The Linders Health Institute™** which is an entity for education and research for Infectious Diseases and construction practices. The Institute has partnered with the Adventist College of Health and Science to deliver courses of study in a distance learning program, thus making it a global production. The Institute is the only kind of its type in the US. Courses address construction practices, ICRA, and Indoor Environmental Quality which support Best Practice standards and LEED criteria as it relates to the healthcare industry. Additionally, the Institute will teach the USP 797 compliance mandates for clean rooms.

Education: RN nursing, MS clinical psychology Halifax School of NSG, BA Architectural Design, NYU. **Other** Harvard University Professional Development Program, Graduate School of Architecture and Design

Presentation Summary: Marlene's presentation will cover the shifting financial winds of healthcare and how healthcare associated infections are changing the safety and the financial factor for hospitals. She will discuss the impact of ventilating air during construction as an environmental risk to workers and patients, droplet dynamics, using ICRA (Infection Control Risk Assessment) and the ICRA Matrix for Construction.

Golden Gate Chapter President's Message - Making a Difference



Golden Gate ASHRAE Members, I am honored to write to you as President of our Chapter. Most of you may know me because I have been involved with TEGA, CTTC and the Technology Awards for many years. Some of you may know that I am also the ASHRAE Region X Vice Chair of the Chapter Technology Transfer Committee.

I got my Mechanical Engineering Degree at Cal Poly where I focused on Solar Energy and Advanced Thermodynamics. After graduating about 15 years ago, I started in the HVAC business with Glumac and immediately joined the Golden Gate Chapter. All of the Mechanical Engineering Principals that I worked for back then were Golden Gate Past Presidents: Dick Glumac, Dart Rinefort and Kevin Dowling. These gentlemen as well as other Golden Gate peers inspired me to get involved. I have found our organization and our Chapter in particular to be a valuable and rewarding society. I am more than proud to serve as your President of the Golden Gate Chapter.

I encourage every one of you to get involved, join one of our Chapter [Committees](#). ASHRAE is a grass roots organization. The Society, our members, every single building occupant benefits from member participation. I invite you to learn more about ASHRAE at the Society [website](#). Read the [Position Documents](#). Send a [Handbook Comment](#) in. Make a difference.

As you can see from our [Programs](#), we are continuing our recent tradition of focusing on Sustainable Design. I want to thank Gary Harbison, our President-Elect and Programs Chair, for putting together an outstanding lineup. We have so many highlights this year that I don't even know where to start. We have a couple of Distinguished Lecturers and ASHRAE Presidential Members coming to speak. We hope that the December meeting will be the largest Chapter meeting in Golden Gate ASHRAE History. We will be talking about Zero Energy Buildings, Water, and healthy indoor environments. You're not going to want to miss a single meeting this year!

Energy Efficiency and Renewable Energy (EE & RE) are the two pillars which we as engineers of the built environment are charged to build up and hold up. Aside from Political Will, we have it in our hands to make a difference in the attempts to mitigate climate change. There I go, I said a word that I'm not supposed to say. Energy, the Environment and Politics are difficult to separate. But as members of ASHRAE and the engineering community, we must apply practical methodology in the policies we advocate and procedures we employ in our work. ASHRAE continues to be looked at as the expert in building energy performance, more so every year. I am confident that we can make a difference. Only the Society President "Speaks for ASHRAE", but the Society President speaks the voice for all of us.

As CTTC RVC, Chapter President and an engineer that loves both efficiency and renewables, expect me to focus President's Messages on: what ASHRAE is all about; how you can get involved and make a difference; and on topics related to EE & RE.

I have the esteemed pleasure to serve with an outstanding Golden Gate Board and Team of Committee Chairs. In addition to our President-Elect and Programs Chair Gary Harbison, I want to identify and thank the rest of our Golden Gate Team:

- Kristin DeMartini, Secretary
- Tom Weaver, Treasurer
- Isabelle Lavedrine, Board Of Governors
- Annie Foster, Board Of Governors
- Jeff Blaevoet, Board Of Governors

Committee Chairs:

- Tyler Bradshaw, CTTC
- Jeff Violet, Research Promotion
- Erica Stewart, Membership Promotion
- Clark Bisel, Seminar
- Tom Gilbertson, Chapter Historian
- Dick Glumac, Dick Charles & Dennis Thompson, Audit
- Robert Marcial, Website
- Yuma Argo, Publicity
- Michelle Vigil, YEA
- Emil Chan, Golf
- James Gronek, Tennis

- Sheila Ruder, Marbles Game

Thank you to everyone for your support and involvement. Please contact me or any of the Board or Committee Chairs at any time if you want to get involved.

I look forward to seeing you at our 2009-2010 meetings.

Best Regards,

Scott Wayland, Golden Gate ASHRAE President

Historian Article - ASHRAE-----r-us!

Tom Gilbertson – Chapter Historian

History seems to be being made before our very eyes... (I guess that it always is)...but it does seem to be perhaps a bit more poignant than usual. Maybe, as ASHRAE members we can consider what we might be doing to affect what will become “history” in later years.

Perhaps we should look back at ASHRAE’s role, and then at our role as the “E”...the “**Engineers**” that are the ASHRAE members.

The ASHRAE “Guide”...now called the “ASHRAE “Handbook Series” is an unequaled chronicler of the activity that supports, and enables our economy.....and it seems to me that it is the “economy” that is making most of the history these days.

Although we often focus our ASHRAE-related activities on heating, cooling, ventilating, and air-conditioning(those are four distinctly different endeavors)...., the ASHRAE Handbook Series, nee, ASHRAE Guide covers far more activity than basic personnel comfort.

In fact the technology chronicled by ASHRAE in its publications covers virtually every enabling technology that is required to operate and maintain an economy.....and it is the economy that seems to be making the most “history” these days.....(and this is a “historically-related” article).

Consider, if you will, just for a moment, all of the “technology” that ASHRAE addresses....pick-up the Handbook Series and see just how many items are “taught”, all or in part, by our Society and its publications....

Baking bread....making beer...making operating rooms safe for use...freezing fish....preserving fruits and vegetables...making candy....storing dairy products...refrigerating railcars...cooling large masses of concrete....filtering the air that we breath...exhaust of cooking facilities...energy recovery....solar energy utilization....ventilating printing plants...enabling film production facilities...engine test facilities...HVAC for planes, ships, trucks, buses and cars....mine ventilation...flash drying....HVAC for schools and hospitals...smoke management for the building....life safety considerations...water treatment...water heating...geo-thermal coupling....industrial drying....nuclear facilities...the basic fundamentals of air moving, refrigeration, combustion, and automatic temperature control...fundamentals of steam production and use...understanding the significance of weather and solar data...making of cloth and paper....and the list goes on, and on.

ASHRAE-technology is the great enabler of all of the items that constitute economic activity into what we might call an economy...and it the “economy” that today is making all of the history.

Assuming that the reader wants to “help” the “economy”after all, while freedom, justice, and choices are what we all like...unless an “economy” supports our daily needs (hopefully in high style)....the reality is that even political activity has little real affect on the reality of supply and demand.

The “economy” is the great enabler of our hoped-for life style....and ASHRAE –technology and its application, is the enabler that allows us to produce and operate most of the goods and services of an economy.

So...you as “engineers” are the root of the issue....and the word “engineer” comes from the Latin “*ingeni*”...to contrive...”*igenium*ability.

Engineering, what the **engineers** do, is....”The application of scientific and mathematical principles to practical ends such as the design, manufacture, and operation of efficient and economical structures, machines, processes, and systems.”

You, who would be engineers...as the “E” in ASHRAE.... need to get busy, expand your horizons, use your ability, and develop and apply, the technology that drives our economy....invent something new...create something different...improve some thing or some process....develop an application that fills a need, and perhaps establish a new facet to our economy.

It is the engineer that enables the engine of progress....I suggest that we get busy...you have the training, skill, and knowledge...your Country needs you!...Get busy and start making history.

Student Activities

Gary Harbison – Student Activities Chair

Our Student Activities chair, Linda Lam is resigning her committee post, as she is moving out of town; so we are in need of volunteer(s) to fill this committee as chair or co-chairs. Please contact any member of the Board of Governors if you are interested in helping us out and filling this position.

We will be awarding student travel-grant(s), for reimbursement of travel and room & board, for attending either the winter or summer Society Annual Meeting.

The ASHRAE winter meeting will be held January 23-27, 2010 in Orlando, FL with the traditional student breakfast taking place Sunday, January 24; featuring speakers, design competition winners, network opportunities and more! An optional technical tour also is available. More details to come! The deadline for submitting applications for the winter meeting is December 11, 2009. The application form on our website, will be ready for downloading in the near future. The summer meeting is in Albuquerque, NM from June 26-30, 2010 with application deadline Spring, 2010.

Lastly, if you are a student we welcome you to attend any of our regularly scheduled chapter meetings and we will buy you dinner! All that is required is that you are a registered student member of ASHRAE. Student membership application is available on-line at <http://www.ashrae.org/students/page/698>.

Chapter Technology Transfer Committee (CTTC)

Tyler Bradshaw – ASHRAE Golden Gate CTT Committee Chair

2009/2010 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 by February 28th 2010.**

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 Facilities (New and Existing); Residential Buildings (New and Existing) both single family and multifamily (Low & High Rise); 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 2010. Therefore, your project should have been occupied by September 2009. By that time there should be good measurement and verification data available. The one year of occupancy 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/14704>

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

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

Join the CTTC Committee

If you like to assist the chapter and get involved with ASHRAE, the Chapter Technology Transfer Committee is one of the best places and we could use your help. Talk to a board member or contact Tyler Bradshaw at tbradshaw@rumseyengineers.com.

Announcements

Zero Net Energy Buildings - How Do We Get There?

Rising to the challenge of climate change requires a dramatic change the way we design, build, and inhabit our buildings. In the near future buildings will be extremely energy efficient, and generate a significant amount of the energy they require.

Zero Net Energy buildings are intended to generate as much energy as they consume.

Professional societies and governments are embracing this goal while a handful of high performance buildings are showing it can be done. Yet the question remains. . .

What will take zero net energy buildings from the experimental scale to the status quo?

Join us for a day long exploration and discussion of this progression. Specific presentations will focus on:

The Definition of Zero Net Energy

What exactly do you mean by “Zero Net Energy?” Review the different definitions of Zero Net Energy buildings and how to use these definitions to set specific energy goals for your next building project.

Shanti Pless, National Renewable Energy Laboratory

The Regulation of Zero Net Energy

Get a preview of California’s plans to encourage and regulate buildings on the way to Zero Net Energy.

Martha Brook, California Energy Commission

The Utility of Zero Net Energy

Learn what a utility company will look like in a Zero Net Energy world. Distributed generation, a smart grid, and smart buildings mean new technology and a new business model.

Andrew Tang, PG&E Smart Energy Web

Dr. William Miller, PG&E Energy Efficiency

Anna LaRue, PG&E Zero Net Energy Pilot Program

The Verification of Zero Net Energy

Get expert guidance on measurement and verification of Zero Net Energy building performance for owners, operators, designers, commissioning agents, and policy makers.

Mark Frankel, New Buildings Institute

The Planning and Design of Zero Net Energy Communities

Many of our energy issues are best addressed at the community, rather than building scale. Wrap your head around Zero Net Energy Communities.

Joe DiStefano, Calthorpe Associates

The GG ASHRAE Seminar Committee is happy to announce that the upcoming ASHRAE Seminar will be available via Web simulcasting. The event, at PG&E’s Pacific Energy Center, will be available ‘live’ on the internet. The webcast will include speaker A/V presentations and voice narration. Attendees will also be able to address questions to the presenters as well.

Details of this free (no cost) opportunity are as follows:

- The webcast will track the presentation slides in real time and have live audio of speaker narrations (speakers will be ‘miked up’). Speakers will use a mouse cursor arrow to highlight information, if needed.
- To access the web system one should register for the seminar and indicate that he/she would like to attend via the web. Registration is open right now on the PEC website (www.pge.com/energyclasses). Please register as soon as possible.
- The PG&E web link system has great connectivity capacity, though not unlimited. The preferred approach would be for groups (firms, organizations, etc) to place one registration and watch via the web feed in a conference room (i.e. one member registers on behalf of the group and thus only a single web link is required).

- This system allows people to come and go as necessary throughout the day. Last year's ASHRAE seminar, which was also simulcast on the web, had more than 50 participants via the web. PG&E has tracked quite a variety of data in regards to this use if you want to know more.
- ASHRAE is investigating making these presentations / discussions available on the web for future access, similar to past seminars.

The Golden Gate ASHRAE chapter is sponsoring this seminar, as an annual event, with assistance from PG&E.

Tennis

James Gronek – ASHRAE Golden Gate Tennis Tournament Chair

The 2009 Annual Eric Andresen Memorial Tennis Tournament took place on Friday August 7th and was a great success. We had 10 participants this year representing 6 different organizations and thanks to generous sponsorships from ABB and Alliance Air Products through Air Treatment Corporation we raised over \$1,200 for Eric's memorial scholarship fund. This year's winners are (and we promise the totals were counted twice!):

1st – Paul Friedenbach

2nd – Dan Noone

3rd (tie) – John Adachi and Shai Shaul

Thanks to everyone who participated in this year's event and we hope to see more of you out with us next year!

2009 - 2010 Event Calendar

<i>Date</i>	<i>Venue</i>	<i>Presentation Topic</i>	<i>Speaker(s)</i>
Thursday, October 15 5:30 pm - 9:00 pm (map)	Scott's Seafood, Oakland	Emerging Infectious Diseases during Healthcare Construction	Marlene Linders: Philders Group International
Thursday, November 12 4:30 pm – 9:00 pm (map)	PG&E Pacific Energy Center, San Francisco	Tech Session: 4:30 pm – 5:30 pm: Low NOx Levels for Boilers and Hot Water Heaters Program: Effective Room Air Distribution...IAQ, Acoustics, Air Distribution, Thermal Comfort & Relationship to Std 90.1 and LEED	Julian Elliot, BAAQMD Daniel Int-Hout Krueger
Thursday, December 3 5:30 pm - 9:00 pm (map)	San Mateo Fairgrounds Event Center, Sequoia Room, San Mateo	Joint meeting with San Jose Chapter Maintain to Sustain	William A. Harrison Society Past President Trane Arkansas
Thursday, January 7 11:30 am – 1:30 pm (map)	PG&E Pacific Energy Center, San Francisco	ASHRAE/USGBC/IESNA Standard 189.1 for High- Performance Green Buildings	Kent Peterson, P2S Engineering
Thursday, February 4 5:30 pm - 9:00 pm (map)	Scott's Seafood, Oakland	Getting to Zero: Lessons Learned from Designing Net Zero Energy Building	Brad Jacobson EHDD Architects
Thursday, March 4 5:30 pm – 9:00 pm (map)	Sausalito Yacht Club, Sausalito	Joint meeting with Redwood Section Water Reclamation, Conditioning & Conservation-Rainwater, Graywater, Reverse Osmosis, Deionization	Brian Soderholm Water Control Corporation
Thursday, April 1 DeYoung Museum	TBD	Presentation of the Arup Design and Building Tour	Ray Keane Timmons Design Engineers, formerly with ARUP
April Tech Tour		TBD	TBD
Thursday, May 6 (map)	PG&E Pacific Energy Center, San Francisco	Showcase/Tech Awards/Student Science Fair	Vendors and Award Recipients
Thursday, June 3 5:30 pm - 9:00 pm (map)	Scott's Seafood, Oakland	Targeting Net-Zero- Energy/Zero-Carbon- Emissions (Z2).	Peter Rumsey, Rumsey Engineers David Kaneda, Integrated Design Associates

TBD = To Be Determined

Visit www.ggashrae.org/calendr.htm for updates, presentation summaries, speaker biographies and to register for the meetings.

Photos

