

FOG DISPENSER



DECEMBER 2013 DINNER MEETING JOINT MEETING WITH SAN JOSE CHAPTER

TECHNICAL SESSION: Transforming Older Buildings into High Performance Facilities

MAIN PROGRAM: ASHRAE BeQ and ASTM BEPA: What the Difference Is Between Them – and How You Can Use Them to your Advantage



SPEAKER: JIM NEWMAN, CEM, LEED®AP, OPMP, BEAP, FESD

Owner/Managing Partner, Newman Consulting Group, LLC Jim Newman is an active member of many technical societies, a member of the Construction and Design Committee and of the Speakers Bureau of the Engineering Society of Detroit (ESD), and ESD's spokesperson on energy and environmental issues. He is a Fellow of the ESD.

Jim is a trainer for ASHRAE Energy Standard 90.1 and has trained hundreds of architects, engineers, code officials, and contractors on the use of the Standard.

He has been active in several ASHRAE TCs, was Vice-chair of the Industrial Air Conditioning TC in the 1970s, chaired many symposia and was responsible for the rewrite of 10 chapters in the Applications Guide and Data Book during that time. He has also been active on TC 5.5, Air-to-Air Energy Recovery, for the past 12 years. He was a member of the committee that developed ASHRAE's Energy Policy Document for 2008 and a Provisional Energy Auditor for the pilot program of the ASHRAE Building Energy Quotient (bEQ).

continued on next page

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**WEDNESDAY, DECEMBER 11
4:00 PM TO 9:00 PM**

**DOUBLETREE HOTEL
SAN FRANCISCO AIRPORT
835 Airport Blvd.
Burlingame, CA 94010**

AGENDA:

4:00 pm
Technical Session
5:30 pm
Registration and Social Hour
6:30 pm
Dinner, Announcements and Introductions
7:45 pm Break
8:00 pm Main Program
9:00 pm Adjourn

Register at www.ggashrae.org

COST:

GG ASHRAE Members,
Before 5pm, Dec. 6 \$40
After 5pm, Dec. 6 \$50

Non-Members,
Before 5pm, Dec. 6 \$50
After 5pm, Dec. 6 \$55

Students/Voucher Holder
Free, but please register

**GOLDEN GATE ASHRAE
FOG DISPENSER
VOLUME LII - NUMBER 3
DECEMBER 2013 COVER**

He is a member of the Energy and Environment Committee of BOMA International, Chair of the Sustainability Committee of the Detroit BOMA chapter, a past Board member of the Detroit Regional Chapter (DRC) of the U.S. Green Building Council (USGBC) and of the Detroit ASHRAE chapter. Jim is Past Chair of the Public Policy Committee of USGBC-Detroit Regional Chapter (DRC), and makes presentations to municipalities on how they can Green their cities and attract Green development.

Jim lectures at area colleges and universities, is a frequent speaker on radio and television programs, and provides webcasts and podcasts to varied audiences on Indoor Air Quality, Energy, Sustainable Buildings and Proper Operating and Maintenance Techniques..

Jim has published numerous papers on Indoor Air Quality, Energy Conservation and USGBC and LEED, and is an internationally recognized speaker on these issues and on Green Design and Efficient Operating and Maintenance practices. His most recent book, co-authored with two attorneys, Current Critical Issues in Environmental Law – Green Buildings and Sustainable Development, was published by Lexis Nexis in June 2008.

He writes a periodic column for the monthly Newsletter of the Detroit ASHRAE Chapter on LEED and Sustainable Design and is LEED Project Administrator for many LEED-certified buildings in the United States as well as elsewhere in the world, with certifications ranging from Certified to Platinum in many different categories

TECHNICAL SESSION SUMMARY

Transforming Older Buildings into High-Performance Facilities
GBCI Approved | 1.5 CE Hours | 0090010520
AIA Approved | 1.5 LU/HSW | NEWMAN02

Most buildings, new or old, do not perform anywhere near their most efficient potential. HVAC systems deteriorate with time. Find out what to look for relative to improving the efficiency of the HVAC and lighting systems in a building, learn how to do it at minimum cost by taking advantage of incentives and rebates, and learn how to keep it performing at its potential to save your owner operating and utility costs.

MAIN PROGRAM SUMMARY

The European Union has had a program in place for several years now to measure the energy used in buildings. This information must be made available to prospective tenants and buyers of the building. The same thing is happening in the U.S. – and is already in place in several states and municipalities. The BeQ (Building Energy Quotient) is a report card of a building's energy use and/or potential energy use. All other things being equal, if two buildings are up for sale or are looking for tenants, the building with the better rating will likely be the winner, as a buyer or prospective lessee will realize their energy bills will be lower in that building. As an ASHRAE member, it is important you be aware of what kind of information goes into this analysis, how it's gathered – and how you can best make use of it.

2013/2014 EVENT CALENDAR

► WEDNESDAY, DECEMBER 11

4:00 PM – 9:00 PM

LOCATION: Doubletree Hotel,
San Francisco Airport

TOPIC: TBD

SPEAKER: Jim Newman

► THURSDAY, JANUARY 9

5:30 PM – 9:00 PM

LOCATION: Scott's Seafood Jack London
Square, Oakland

TOPIC: TBD, joint meeting with AIHA's
Northern California Section

SPEAKER: TBD

► THURSDAY, FEBRUARY 13

11:30 AM – 1:30 PM

LOCATION: PG&E Pacific Energy Center

TOPIC: Noise Control

SPEAKER: Brandon Wallace, BRD Noise &
Vibration Control, Inc.

► THURSDAY, MARCH 13

5:30 PM – 9:00 PM

LOCATION: TBD, joint meeting with
Redwood Empire

TOPIC AND SPEAKER TBD

► THURSDAY, APRIL 10

11:30 AM – 1:30 PM

LOCATION, TOPIC AND SPEAKER TBD

► THURSDAY, MAY 8

5:30 PM – 9:00 PM

LOCATION, PG&E Pacific Energy Center

TOPIC: Awards and Product Show

► THURSDAY, JUNE 12

5:30 PM – 9:00 PM

LOCATION: Scott's Seafood Jack London
Square, Oakland

TOPIC: Golden Gate ASHRAE – Past, Present,
and Future

SPEAKERS: Tom Gilbertson and YEA Chair



Hello Golden Gate ASHRAE Members!

First of all, thanks to all of you who came to our lunchtime Chapter meeting in November. We were in a new location, and the whole set-up was very challenging. Peter Rumsey gave us a very good presentation on “Out-of-control Controls”, and there was a lively discussion afterwards. Tom Weaver, our past-president was also the lucky winner of the Marble Draw.

The rain has finally stopped, and now I am looking forward to more sunshine! I know that we desperately need this rain as this has been so far the driest year since records started. But that doesn't make me like it any better! It just puts me in a gloomy mood, thinking of all the disasters happening around the world – the typhoon in the Philippines, massive flooding in Sardinia. Maybe it's not due to climate change, I still believe that the climate is changing. We should keep thinking about all we can do, even in little ways, to help slow down the changes.

Anyway, this rain just confirms that winter is here, and we are all busy preparing for Thanksgiving and the holidays. Don't over-indulge of the turkey and the pumpkin pie! It also means that the ASHRAE annual meeting is soon coming up, between January 18 and 22, in New York. As usual, we are looking to send a student, paying their expenses. Please see the application form in the Fog, and the conditions to be met. And we are looking forward to a summary from the lucky attendee(s), for the Fog and at a Chapter meeting.

Our next meeting is on Wednesday 11th December – it's our joint meeting with San Jose. Unfortunately, I won't be able to join you as I will be vacationing under warmer climes. But please have a drink for me, as would I have been present, I would be celebrating my birthday with all of you. Enjoy!

Isabelle Lavedrine

"ASHRAE Christmas Party...and Planning for ASHRAE Winter Meeting

Tom Gilbertson, Chapter Historian

Historically that is what we do/did in "December".....attend the Annual ASHRAE Christmas Party....(which we don't have any more)....and finalize the arrangements to attend the ASHRAE's Winter Meeting....which coincidentally is held at the same time as the International Air-Conditioning Exposition.....(Incorrectly known as the "ASHRAE Show").

Looking over the past records...in 1948 Karl Baldwin, who was in charge of the Golden Gate - "ASHVE" Christmas Party....(we weren't ASHRAE yet).... Karl hired an accordion-player for the evening....and we invited the wives to join us.....and the Chapter sang Christmas Carols!....I knew Karl, and I bet that he probably auditioned several possible musicians and why not....they paid accordion player \$2.50 for the evening....

1963...just like this coming year...2014.....the "ASHRAE-Show"....is in New York...and it was the first one that I was able to attend...being sent there, much to my surprise...by the benevolent company for which I worked....Two thing surprised me...

One.....That someone would spend that much money to pay for the trip...air fare, hotels, and meals...and the time!

And....

Two....That no one else in our San Francisco Branch Office wanted to go....



Times Square 1966

(I)....discovered "hospitality rooms"

Not me!....with that chance I was off to New York!!.....took in the Empire State Building, the Statue of Liberty....three Broadway Plays...had lunch at Toots Shore's....discovered "hospitality rooms"...rode on the subway!....had room service!....actually went to the International Air-Conditioning Exposition...and generally enjoyed the whole experience....(Which by today's standards was probably pretty tame)....but it was the ASHRAE-connection that made this happen.....We were expected by the Company to wear a "dress suit"...and preferably a "hat"....

so as to appear "professional".....and I didn't disappoint them...never even thought about it....

My "sophistication" must have given me away...when I entered the Show's hall...and the fellow behind me heard my remark that... "that they could sure put a lot of hay in this place".....The Broadway Show that I remember absolutely clearly was..."A Funny Thing Happened on the Way to the Forum"...starting Zero Mostel....I laughed so hard that my sides actually hurt for several days...

"Historically"...is there a point to this....well..."Yes"...ASHRAE.....through the years gave me wonderful excuses to travel... see the "World"...and earn a living....and for myself...enjoy the chance to work, and have a job!....I have enjoyed every minute of the experiences that ASHRAE provided me!....I'd be curious to know how today's ASHRAE members view their "ASHRAE-experiences"?.....and perhaps someday look back at them?



YEA promotes young ASHRAE members to engage in the local chapter and to get everyone excited about our industry. If you are interested in joining our committees monthly discussion, please contact John Gardner at jgardner@victaulic.com.



Also, please make sure to check out our new facebook page at: www.facebook.com/YEAGoldengate and our Golden Gate YEA website where we showcase past and upcoming events: www.ggyea.org

For more information on Golden Gate YEA check out: www.ggyea.org
Also [Golden Gate YEA](#) is on Facebook now!

CHAPTER TECHNOLOGY TRANSFER COMMITTEE (CTTC)



Christopher Daniel,
ASHRAE Golden Gate CTT Co- Chair

Christine Lee, ASHRAE Golden Gate Co-Chair

Technology Awards

If you would like to submit your recent projects for an ASHRAE Technology Award please contact Christopher Daniel at cdaniel@accoes.com or 415.889.9772 or Christine Lee at christine.lee@arup.com. Further information will be provided and application assistance will be provided.

MARBLE DRAW



Great thanks to our sponsor of the November lunch meeting, Siemens! Congratulations to those who won prizes from the raffle! Tom Weaver drew the lucky marble for the \$500 prize! The chapter acknowledges his thoughtful donation.

We are always looking for sponsors for our meetings. Please contact us if you are interested in sponsoring the prizes for future meetings. If your company donates prizes, your company's logo will display on a slideshow during the non-speaker portions of the meeting. You'll also know that your firm helped to fund ASHRAE research and scholarships!

For more details contact Kevin Edstrom,
Kevin.Edstrom@wspgroup.com

MEMBERSHIP PROMOTION

Nikola Kravik, Membership Promotion Chair



Our chapter is doing very well in terms of recruiting new members and talking to folks that just graduated out of college or maybe new to the Bay Area. I encourage everyone to attend the upcoming joint meeting with San Jose Chapter on Dec 11th. Remember that you have a chance to get a free meal: if you bring a non-member to dinner and they join Society and the Chapter by the following chapter meeting you will get your next meeting on us!

New members list for October and November, including 4 new student members:

MEMBER

Mr. Jonathan Stone
Mr. Michael Sullivan
Ms Anna Osborne
Mr. Adam Havner
Mr. David Jones
Ms Zin Min Aye
Ms. Nicole Seiderman
Ms Milica Grahovac
Mr. Justin B Chadwick
Dr Paul Raftery, PhD
Mr. Steve Salzman
Mr. Rick Magarian
Mr. Andrew Corney
Mr. Mark Goldberg
Mr. Steve Salzman
Mr. Aaron Dropp

STUDENT

Mr. Jesse Skeets
Mr. Jackson Nguyen
Ms Tiffanie Puente
Mr. William Wambsgans

MEMBERSHIP ADVANCEMENT

If you are an Associate member, becoming a full member may be easier than you think. The following count toward the 12 points necessary to advance to full Member status. You must update your biography on the Society web site and email membership@ashrae.org to advance.

Non-accredited degree = 4 points

Accredited degree = 6 points

P.E. = 3 points

Every year working in industry = 1 point

To become a member of the Golden Gate Chapter you must first be a Society member (www.ashrae.org/membership/page/589). If you are currently a member of Society and wish to join the Chapter, you can synchronize your renewal dates by paying pro-rated Chapter dues. Society membership is \$190 for Affiliates, Associates and Members and \$20 for students; Chapter membership is \$50 for Affiliates, Associates and Members and \$20 for students. Full time students dine free all year and Student Transfer membership allows you to maintain a reduced membership for the two years following graduation. Contact me for more information (nkravik@willdan.com).

ASHRAE's SmartStart Program



It's Holiday Season, instead of usual presents-be different-if you know a student and he is wondering what's next help him with the ASHRAE SmartStart program, more details at the link below. For \$120 it's the best money spent of them and 3 yrs of networking that people forget and students need it the most!

<https://www.ashrae.org/membership--conferences/student-zone/membership-and-meetings/ashraes-smartstart-program>



Zberri Alvi Research Promotion Chair

The Golden Gate Chapter has established a research endowment fund in memory of Dick Charles, past Golden Gate Chapter and society president. Contributions to the fund will earn money for ASHRAE research in perpetuity. Dick was a trustee of the ASHRAE Foundation, which will manage the fund.

Contributions to the Dick Charles Memorial Fund can be made at www.ashrae.org/contribute.

Invest in ASHRAE and Help Shape our Future

I would like to financially support ASHRAE's mission, programs, and member services indicated below: (indicate the amount you wish to contribute in U.S. dollars to any or all resources below)

U.S.\$ ☐ ASHRAE Research ☐ ASHRAE Research Canada

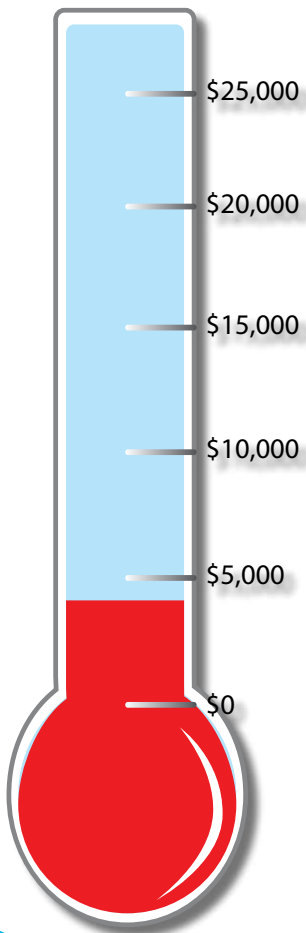
U.S.\$ ASHRAE Learning Institute and educational programs

U.S.\$ Endowed Research via ASHRAE Foundation.

☒ By checking the box, I indicate that I understand that these are endowed funds and permanently restricted for the support of ASHRAE Research.

Existing Fund Name (If known):

[Click here to see existing endowments](#)



Following individuals and companies have generously supported ASHRAE Research and Golden Gate Chapter for the 2013-14 Campaign.

Your contributions are much appreciated. Thank you for making a difference and shaping tomorrow's built environment today.

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Mark Walton
Tom Weaver

Donations are tax deductible, by check, credit card or online at www.ashrae.org/contribute

Mail Checks to: ASHRAE RP: 1791 Tullie Circle, NE: Atlanta, GA 30329

For more information, please visit Research and Promotions section on www.ggashrae.org or contact RP Chair Zberri Alvi at (510) 206-9905, zalvi@dmgn.com

Our goal for this year is to raise \$24,500 for ASHRAE Research

Goal: \$24,500 Contributions: \$3,401



John Williams, Student Activities Chair **New York Winter Meeting Travel Grant**

Each year, the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) hosts a Winter Conference in January. The conference is attended by over 10,000 industry professionals, with lots of learning activities for attendees and is an excellent opportunity to get involved with a number of different sessions.

- *catch up on the latest technical research in the HVAC&R field*
- *network with hvac students, professionals, employers, and industry leaders*
- *tour existing facilities and interact with building operators and engineers*

<https://www.ashrae.org/membership-conferences/conferences/2014-ashrae-winter-conference>

The Golden Gate Chapter would like to invite Chapter Students to attend the conference at no/low personal expenses, through its scholarship funds.

Please feel free to contact me for further information and an application form. We look forward to receiving your application.

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Title 24 2013 Update Highlights

Mark Hydeman, PE, ASHRAE Fellow

Golden Gate ASHRAE Past President



Title 24 2013 has been adopted and takes effect on 1/1/2014!

This version of the Standard is MUCH more stringent than the 2008 version.

Here's a thumbnail summary of the major changes for HVAC and Covered Processes:

Note the numbers after each measure are the reference section numbers from the Standards• Computer Rooms – 140.9(a)

- Kitchen Ventilation – 140.9(b)
- Garage Ventilation – 120.6(c)
- ECM Fan Motors – 140.4(c)
- Single Zone VAV Fan Control – 140.4(m)
- Economizers
 - Scope – 140.4(e)
 - Trade-Off – Table 140.4-A
 - High Limit Switches – Table 140.4-B
 - DX Compressor Unloading – Table 140.4-C
 - Components – 140.4(e)4
 - Fault Detection – 120.2(i)
- Occupant Sensors Ventilation Control – 120.1(c)5
- Hotel Room Setback – 120.2(e)4
- EMCS Demand Shed Controls – 120.2(h)
- Unitary Thermostats and Demand Shed – 110.2(c), 120.2(b)4 and JA5
- Reduce Reheat – Exception to 140.4(d)
- Chiller Efficiency: – 120.2(a), Table 110.2-D and 140.4(i)
- Cooling Towers – Table 110.2-G and 110.2(e)
- Large Boilers – 120.6(d) and 120.9
- Pipe Insulation – Table 120.3-A

Here's a thumbnail summary of the major changes for the other disciplines:

- Air Compressors – 120.6(e)
- Commercial Refrigeration – 120.6(b)
- Refrigerated Warehouses – 120.6(a)
- Labs (VAV required) – 140.9(c)
- Solar ready buildings – 110.10
 - Requires designated solar area, clear path for conduit routing
 - Structure built to support PVs
 - Does not apply to non-residential > 3 stories or hotel/residential > 10 stories
- Very aggressive lighting power densities - 140.6
- Very aggressive lighting controls - 130.0 to 130.4
- Mandatory electrical power distribution system disaggregation by end use (lighting, HVAC, DHW, plug loads – uncontrolled, plug loads – controlled (e.g. timeclock), elevators, and large appliances) -130.5(b)
- Max voltage drop of feeders, branch circuits 130.5(c)
- Building Commissioning (OPR, BOD, 3rd party design review, Cx specs, Cx Plan, FPT, Systems Manual, Cx Report) – 120.8
- Significant increase in stringency for windows and skylights
 - e.g. Vertical Fixed Glazing $VLT \geq 0.42$, $RSHGC \leq 0.25$ - Table 140.3-B
- Building Envelope Commissioning NA7.4

In addition to the changes in the requirements there were significant changes to the compliance forms. These are documented in the Non-Residential Compliance Manual.

Resources

Copies of the Standards, Appendices and Compliance Manuals can be downloaded from the CEC website at this address:
<http://www.energy.ca.gov/title24/2013standards/>.

Presentations on the new requirements for HVAC and Covered Processes and the associated acceptance tests are posted on our website here: http://www.taylor-engineering.com/publications/title_24_resources.shtml.

NOVEMBER LUNCH MEETING RECAP



NOVEMBER LUNCH MEETING RECAP



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