

FOG DISPENSER



NOVEMBER 2013 LUNCH MEETING

MAIN PROGRAM: OUT OF CONTROL CONTROLS

SPEAKER: Peter Rumsey, Integral Group



A national leader in the design of low energy buildings, Peter has designed mechanical systems for data centers, cleanrooms and laboratories that are among the most energy efficient in the U.S. He is a registered professional engineer in 10 states, a certified energy manager and a Senior Fellow of Rocky Mountain Institute. He is a graduate of UC Berkeley's mechanical engineering program and is a frequent lecturer at industry events, conferences and colleges and universities including UC Berkeley and Stanford University. The focus of Peter's career has been on transformation of the building industry by designing affordable and drastically energy efficient buildings.

PRESENTATION SUMMARY

Peter Rumsey, a veteran of the HVAC and energy efficiency fields, will talk about his experience with building control systems over the last three decades. He will present his unique data based perspective on what is broken in the \$10 billion building controls market. The presentation will include a discussion of solutions to these problems including new disruptive technologies. Peter will share his experience advising VCs and start-ups in the building controls space.

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THURSDAY, NOVEMBER 14
11:30 AM TO 1:30 PM

SERRANO HOTEL
405 Taylor Street
San Francisco

AGENDA:

11:30 am
Registration and Social Hour
12:00 pm
Lunch, Announcements and Introductions
12:15 pm
Presentation and Q&A
1:30 pm Adjourn

Register at www.ggashrae.org

COST:

GG ASHRAE Members,

Before 5pm, Nov. 8	\$40
After 5pm, Nov. 8	\$50

Non-Members,

Before 5pm, Nov. 8	\$50
After 5pm, Nov. 8	\$55

Students/Voucher Holder

Free, but please register

GOLDEN GATE ASHRAE
FOG DISPENSER
VOLUME LII - NUMBER 2
NOVEMBER 2013 COVER

2013/2014 EVENT CALENDAR

- **THURSDAY, NOVEMBER 14** 11:30 AM – 1:30 PM
LOCATION: Serrano Hotel, 405 Taylor Street,
San Francisco
TOPIC: Out of Control Controls
SPEAKER: Peter Rumsey, Integral Group

- **WEDNESDAY, DECEMBER 11** 5:30 PM – 9:00 PM
LOCATION: TBD, joint meeting with San Jose Chapter
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

MARBLE DRAW



At the October dinner meeting Wasil Popow won 49er's tickets from Heat Transfer Equipment Company and Nikola Kravik took home San Jose Sharks tickets donated by R.F.MacDonald Co. The lucky marble remained in the bag, so odds improve to 1-in-5 at the November meeting.

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**



Hello Golden Gate ASHRAE Members!

As I am writing this, the weather is reminding me that summer is over, and that winter is on its way... all this gray weather is a good reminder that the ASHRAE year has truly started.

We had a great first chapter meeting where I hope everybody present learned something new about ASHRAE. I know I did (only the president of ASHRAE can speak in ASHRAE's name), and it's always a good day when you learn at least one new thing. Thank you to all our panelists for coming and sharing their knowledge. And if any of you still have questions, any of us on the Board will be glad to (try to) answer them.

I also attended the very first San Jose-Golden Gate Clayshoot event in Morgan Hill, and it was a lot of fun. It was my very first time holding any kind of firearm and I wasn't half as bad as I thought I would be. The weather was absolutely gorgeous, and Justin Libay did an amazing job putting it all together. I certainly hope it is going to become an annual event. Thanks to Justin, I also learned that I was left-eye dominant despite being right-handed, so I should be even better at hitting the targets next year! Beware!

Finally the Seminar on "Radiant Systems: HVAC Design, Energy Assessment and Architectural Implications" was a great success, with the meeting room at the PEC full and over 100 online attendees. Thank you once again to our panelists and our sponsors, as well as the very diligent Seminar Committee for putting this event together.

For all our student members, I would like to mention to them that ASHRAE provides scholarships at various levels, so check out ashrae.org/scholarships. Don't forget that Golden Gate also provides scholarships and grants to students in our geographical area. We will soon ask students to apply for a travel grant to the Winter meeting. Watch this space! (or contact any of us).

Our next meeting is on Thursday 14th November in San Francisco at lunchtime, and Peter Rumsey of Integral Group will talk about "Out-of-control Controls". Hope to see you there!

Isabelle Lavedrine



“ASHRAE Members — “Problem Solvers”.....But What Next?

Tom Gilbertson, Chapter Historian



Historically ASHRAE Members... nee ASHVE and ASRE...have been problem solvers.....and that is probably what has kept our industry interesting.....Over the years...just what problems did our Society members solve?

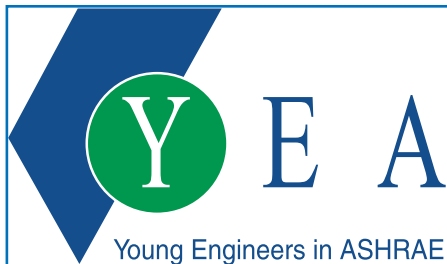
“ASHRAE members” solved virtually every problem that struck our Country....and that is what we were always doing.....“solving” whatever problem that seemed to pop-up....(To be clear about something.....we are the “American” Society....and I take that to mean chiefly The United States and Canada....and these were probably the only two countries where a Society as ours could garner enough financial traction to have a Society as ours.) In other words the **time** and **conditions** had to be right for “ASHRAE” to succeed.....There had to be enough money available to be able to support our efforts.....AND...if you do remember some of our history...it was also about being able to earn a living...and our industry seemed to present those conditions.....or maybe the word should be “opportunity”.

I wonder what problems.... “ASHRAE” will be solving 75 years from now?.....75 years-ago we were pretty busy trying to keep a

Nation “warm”...and preserving enough foodstuffs to carry us through a Winter...and adding the capability to provide “fresh milk” to the Country..... (One of the successful companies through the Depression of the 1930’s was “CREPACO” ..The stood for “Creamery Packaging Company”...and they sold refrigeration units to the fresh milk and butter “industry” and solving the problems related to these issues actually created an economy that allowed us.... “ASHRAE-type people..... to make a living in an economy that had “**needs**”.....But what about today...and 75 years from now ? ...Will our skill sets be relevant to the Nation’s needs?...will an economy “need” us?...as it did 75 years ago?... Look at what a rough and needy world we had in the late 1930....an absolute “**infant**” of a refrigeration industry....We had real “iceboxes”...“boxes that we put ICE inside of”.....so our ASRE predecessors refined and built small “refrigerators”...still called “iceboxes”...(out of habit by this 76-year old)....and the great appliance industry was born....born by demand for a more convenient life style.....and look at all of factories that were need to meet the “demand” for better living. Then we had “central-frozen-food locker plants where you could rent a compartment where you stored your cache of frozen food....(anybody remember that?)... my guess is that many of today’s members would say.... “You got to be kidding.....store **your** personal frozen food in a building away from your house?”....but it was ASRAE-members that designed and built those facilities...and subsequently.... our industry fore-runners who designed and built the household refrigerators that put the locker plants out of business....and the fall-out from this activity was an economy that needed engineers...and hired lots of workers to produce all of the wonderful improvements...that our economy allowed us to afford.....

**.....75 years-ago
we were pretty busy
trying to keep a
nation “warm”**

But what next?...how many APPs do we have that absorb our time and interest...that produce nothing.....nothing of substance....and certainly not produce anything in North America....Do realize that there no longer is a **single** window-unit air-conditioner produced in the US or Canada?.....That ship has sailed.....and do you think that you could hire 25 engineers to design the plant and manufacturing facilities that could produce package air conditioning units?....If you did I bet at least a third of them when they came up to a problem would simply reach in their pocket...and ask “Siri”....



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 Committee 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. Further information will be provided and application assistance will be provided.



New CTTC Co-Chair

We would like to announce the new CTTC Co-Chair **Christine Lee** of ARUP. Thank you for coming on board Christine. I look forward to working with you this year. I could sure use the help!

Nikola Kravik, Membership Promotion Chair



We had a wonderful first meeting of the season and membership promotion night last month at Scott's in Oakland. It was great to see familiar faces and also many new ones. I hope all of us continue to be the stewards of ASHRAE and strive to promote our values to new potential members.

Since June till mid October 2013, our Golden Gate Chapter has expanded by another 35 new members.

Please join me in welcoming the following new members:

MEMBER

Mr. Ashley Messier
Mr. Rick Magarian
Mr. Orlando J Castro
Mr. Mark L Collins
Mr. Subhendu Banerjee
Mr. Matthew Robert Tovar
Mr. Murad H Ghaith

ASSOCIATE

Ms. Anna Osborne
Mr. Chris Dunphy
Mr. Justin B Chadwick
Mr. Benjamin Brannon
Mr. Siobhan McCabe
Mr. James Patrick Lonergan
Mr. Geoffrey Yamasaki
Ms. Kimberly Wiebe
Mr. Jacob Fitzhugh
Mr. Ivan Molina
Mr. Chris Light
Ms. Annemarie Erbel
Mr. Jonathan Stone
Mr. Peter Grant
Mr. Joey Ho
Mr. Daniel Kekai
Mr. Aren Daniel Hofland
Mr. Jeremy Augustin Martinez
Mr. Curtis Lee
Ms. May K Chan
Mr. Lars Peter Mortensen
Mr. Anthony Paul
Ms. Shweta Maurya
Mr. David Jones
Mr. Joseph St John
Mr. Moana Eric Reynau
Mr. Bill Tott

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).



Zberri Alvi Research Promotion Chair

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.

ORGANIZATIONS

\$1000 to \$1999

Norman S Wright

\$250 to \$999

DMG North

Marelich Mechanical

INDIVIDUALS

Up to \$249

Zberri Alvi

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Kevin Dowling

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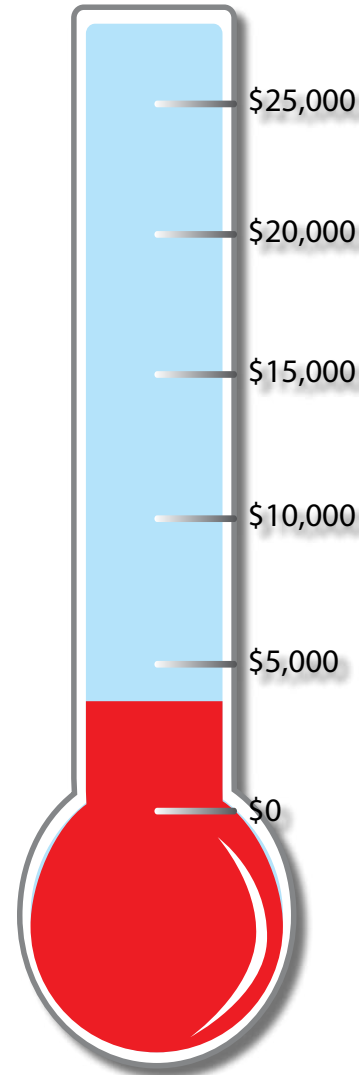
Wasil Papow

Dennis Thompson

Michelle Dionello

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: \$3,201



Some were amazed by the fact that they shot so well, or not

CLAYSHOOT EVENT REPORT

By Justin Libay

The first annual ASHRAE Sporting Clays event was a hit! Over 75 attendees from 16 different companies attended on Saturday, October 12. Many participants had their first experience with a shotgun at this event. Safety/safe operation was emphasized at every turn, starting with safety equipment and orientation to having a shooting instructor at each station.

After check-in and safety orientation, groups of participants had their choice of 10 shooting stations to try which had been exclusively reserved for ASHRAE. Sporting Clays, like golf, have up to 18 shooting stations spread over a very large area. Each station has varying terrain and clay targets launch from different directions. For example, some stations throw the clay targets way into the air and others hop along the ground like a rabbit.

By noon, BBQ Tri-tip steak & Chicken were waiting for our hungry shooters. Lunch was held at a picnic & event area reserved exclusively for ASHRAE. After lunch, our attendees were hungry for more shooting. Some continued to explore the various sporting clay stations while others went to try the more structured Clayshooting disciplines of Trap and Skeet.

The event ended well with memorable fun with friends, family, coworkers, and associates. Some were amazed by the fact that they shot so well, or not. Some were surprised to see certain people do so well on their first time shooting. Others found a new hobby or obsession they can take up and rant about at work, but everyone had fun.

A very special thanks goes to Syserco, Norman S. Wright, and California Hydronics for sponsoring five shooting stations. Thanks also to the squad of SJSU-grads that volunteered their time and experience to staff the registration tables and shooting stations. We hope to see you next year at ASHRAE Sporting Clays 2014!



SEMINAR REPORT

Chapter has Successful Seminar on Radiant Energy



Charles Eley, FAIA PE, Seminar Chair

The chapter sponsored a successful seminar on radiant energy at the Pacific Energy Center on October 16, 2013. About 100 participated in person and another 100 participated through a simulcast. Dan Nall made excellent presentations on the design and operation of radiant heating and cooling systems. Scott Shell addressed the architectural benefits of radiant systems including reduced duct space and better comfort as well as the challenges of limited floor penetrations and fixed manifold positions. Edward Arens addressed thermal comfort in the context of radiant systems and Jingjuan (Dove) Feng addressed performance prediction and modeling of the systems. Evaluation forms indicated a very high satisfaction with the program and the seminar committee will begin working soon on a program for 2014. Special thanks go to the seminar committee: Clark Bisel, Glenn Friedman, David Lehrer, Mike Scofield, Robert Marcial and Tyler Bradshaw.



Find the presentation slides and other radiant-system resources at <http://ggashrae.org/meetinginfo.php?id=20&ts=1381857233>

The chapter is grateful of the support of platinum, gold, and silver sponsors who made the event possible.

**Platinum
Sponsors**



Gold Sponsors



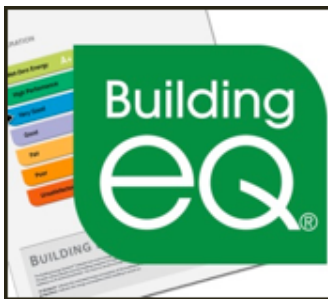
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Peter H. Rumsey, PE, FASHRAE



Building Energy Quotient

ASHRAE's Building Energy Labeling Program

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bEQ was created to help building owners reduce their energy expenses, and ultimately to help lower energy consumption nationwide. It now provides two separate ratings to help accomplish this goal.

1. With the As Designed rating, owners can determine their building's potential energy efficiency, by looking at a building's physical characteristics and systems without the impact of operating and occupancy parameters. The rating is performed by an ASHRAE-certified Building Energy Modeling Professional. Because it doesn't need 12 months of operating data, it can be used for buildings in operation for less than a year.
2. The In Operation assessment uses actual, metered energy consumption to compare a building's energy performance with similar buildings in similar climate zones. Performed by an ASHRAE-certified Building Energy Assessment Professional, it includes a detailed collection of data gathered in an ASHRAE Level 1 Energy Audit.

The unique depth of the analyses of the two bEQ ratings provide building owners with the ability to measure their building's potential for energy performance improvement, flexibly manage their building's energy costs, get data for justifying investments in the technologies and practices that make sense for their facility, and answer questions from potential buyers and tenants on energy efficiency and occupant comfort.

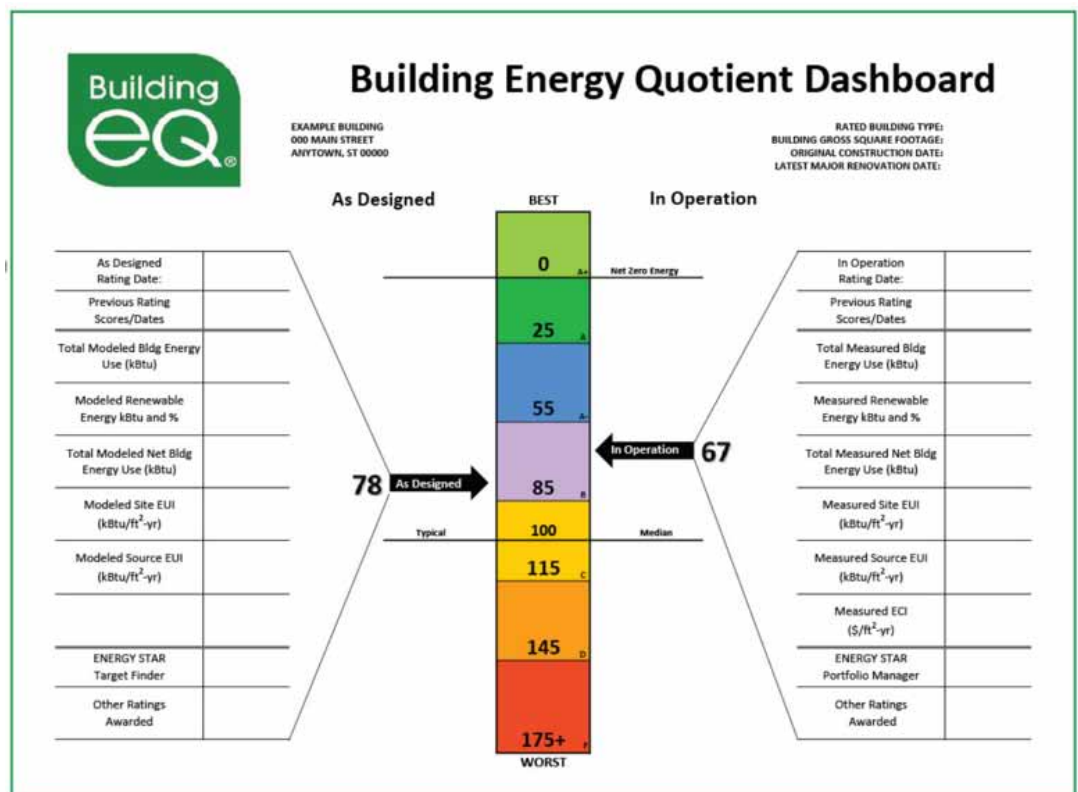
While powerful and technically sound, bEQ provides easily understood tools:

- * bEQ Workbooks, including the complete building analyses.
- * bEQ Dashboard illustrating the level of performance for As Designed and/or In Operation performance.
- * bEQ Certificate for presenting key building performance factors and complying with disclosure laws.
- * Graphic Files for bEQ Plaque to publicly display the building ratings.

ASHRAE asks that you consider participation in this important program.

For more information see

<http://buildingenergyquotient.org/index.html> or contact info@buildingenergyquotient.org.



B

AS DESIGNED
June 2013

A-

IN OPERATION
June 2013



Zero Net Energy **A+**

High Performance **A**

Very Good

A-

IN
OPERATION

AS
DESIGNED

Efficient

B

Average

C

Inefficient

D

Unsatisfactory

F



bEQ administered by ASHRAE
www.buildingenergyquotient.com

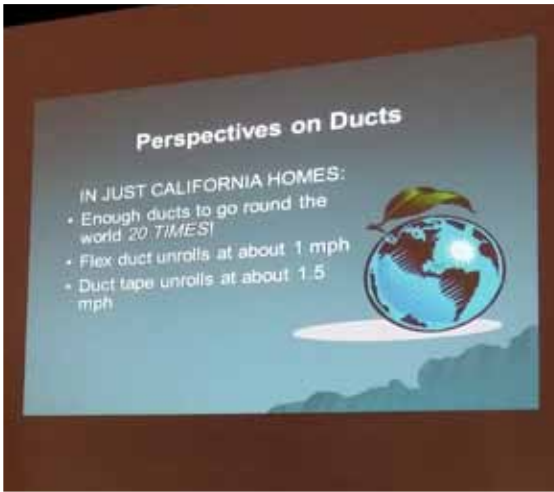
BUILDING ENERGY QUOTIENT

As Designed: Indicates the estimated energy consumption of this building as designed.
In Operation: Indicates the energy consumption of this building in actual use.

Building Location:
Sample Building
1000 Any Street
Anytown, USA 10000

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OCTOBER DINNER MEETING RECAP



OCTOBER DINNER MEETING RECAP



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