

Orange Spiel



Juicy News from ASHRAE's Orange Empire Chapter



MEETING INFORMATION

TUESDAY, OCTOBER 25, 2016

HOLIDAY INN

2726 S. Grand Avenue
Santa Ana, CA 92705
(see map on page 5)

Event Time.....5:30 – 8:30 p.m.

PLEASE E-MAIL

(PREFERRED),
PHONE, OR FAX YOUR
RESERVATIONS TO:

Carlton Haywood
c/o Setpoint Systems Corporation
chaywood@setpointsystems.com
Phone (949) 396-4713
Fax (949) 251-0787

PRICE SCHEDULE

ASHRAE Membe.....\$40.00
Non-Member.....\$45.00
Student.....\$10.00

**IF CANCELLATION IS NOT
RECEIVED YOU WILL BE BILLED
FOR THE SESSION**

SEE PAGE 5 FOR FAX ORDER FORM

DINNER PROGRAM

"How Not To Design a Steam System" by Bob Sorensen

TECHNICAL SESSION

"Optimizing Tomorrow's Steam System Through Knowledgeable Design Today" by Bill Harms

Orange Spiel Editor

Robert Hagstrom, P.E., LEED AP
c/o Southern California Edison
6090-B N. Irwindale Avenue
Irwindale, CA 91702
Phone (626) 633-3432
PAX 43432
Cell (626) 609-9791
Robert.Hagstrom@sce.com

OCTOBER MEETING NOTICE

TUESDAY, OCTOBER 25, 2016

DINNER PROGRAM

HOW NOT TO DESIGN A STEAM SYSTEM

Every steam system is unique and offers the designer challenges in determining the correct equipment selection to insure adequate steam production to meet application load requirements.

This topical is intended to serve as a refresher for design consultants engaged in selection and sizing of steam boilers intended for process application.

Proper sizing of a boiler will be considered as well as near-boiler piping and system piping best practices.

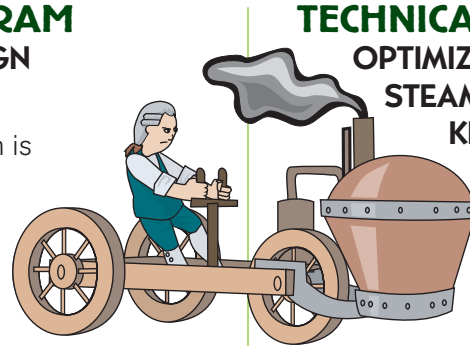
Our presenter, Bob Sorensen, is the Western Regional Sales Manager at The Fulton Companies, a global heat transfer manufacturer with operations in China, Switzerland, The United Kingdom, and North America.

A graduate with a Science Degree majoring in Medical Technology, Bob left clinical healthcare in 1984 to join an energy sector affiliate of Southern California Gas Company and has worked in process energy markets since that time developing micro co-generation platforms and traditional central utility heating and process systems.

He has utility, energy contracting, process heating and combustion and control experience working throughout

TECHNICAL SESSION

OPTIMIZING TOMORROW'S STEAM SYSTEM THROUGH KNOWLEDGEABLE DESIGN TODAY



**STEAM SYSTEMS HAVE
COME A LONG WAY! IT'S
STEAM NIGHT AT THIS
MONTH'S MEETING!**

A look at various ways steam systems can be designed (or retrofitted) to maximize future needs for effectiveness, longevity, and energy efficiency.

Our speaker, Bill Harms, has performed many functions at Spirax Sarco for over 40 years, including energy services, technical training and technical support. He currently is responsible for sales and system consultancy involving end-users and consulting engineers in the western U.S. An engineering graduate from California State Polytechnic University, he is experienced with design, construction, commissioning, troubleshooting, and maintenance of steam systems ranging from biotech to petrochemical but is especially fond of breweries.

We look forward to seeing you at the event. **Carlton Haywood**

North America for the past three decades.

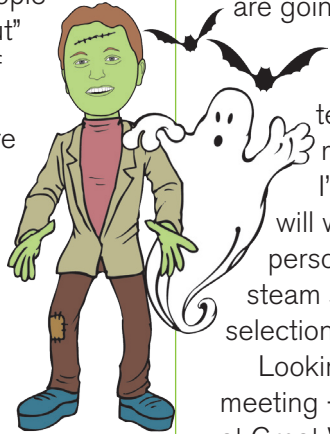
In his current position, Bob is responsible for business planning and development, market and product research, and manufacturer representative management.

Derrick Wyka

ERIC'S BLOG

It's good to know people weren't too "spooked out" to attend this year's golf tournament at Coyote Hills Golf Course. We are continuing a trend from last year and were again sold out!


Thanks again to all the hard work our Golf Chair, Dan Davitt, did to organize the event. I also want to thank the many sponsors, whose support made it all possible.



This month's presentation is going to be a hot one - we are going to talk about steam and proper system design. With both our technical session and main dinner presentation, I'm confident everyone will walk away a smarter person when it comes to steam systems and equipment selection/application.

Looking ahead to November's meeting - we will be having it at Great Wolf Lodge in Garden Grove. The meeting will include a tour of the pumping systems as

well as a presentation by Cody Butcher, the Corporate Director of Waterparks for Great Wolf Resorts. He will talk about "Water Chemistry and IAQ." This will also be a joint meeting between ASHRAE Orange Empire and the ASPE Orange County Chapter. Please make sure to register early for this event as we are limited on seating available and are predicting a large turnout with both chapters participating.

Thanks again for being a part of our chapter. We couldn't do this without your continued support. **Eric Decker** 

SEPTEMBER MEETING MINUTES

Date: September 27, 2016

Time: 4:30 - 5:30 PM

Place: Holiday Inn – Santa Ana

MEETING ATTENDEES

Jeff Conrad (JC)
Eric Decker (ED)
Michael Garabedian (MG)
Greg Glover (GG)
Kenneth Golovko (KG)
Robert Hagstrom (RH)
Jeff Hanzel (JH)
Carlton Haywood (CaH)
Craig Hofferber (CH)
David Lawson (DL)
Steve Rawski (SR)
John Sawyer (JS)
Mat Waller (MW)
Derrick Wyka (DW)
David Yancosky (DY)

CALL TO ORDER

1. Meeting called to order at 4:36 PM
2. Quorum established
3. Announcements

4. Next Meeting Date:
October 25, 2016

DISCUSSION ITEMS

1. Programs Discussion
 - a. October Meeting - looking for tech session speaker
 - i. SW to follow-up with Spirax Sarco contact
 - b. November Meeting - JH to confirm speaker and topic
 - i. ED motion to have pricing as follows:
 - \$50 per person for members
 - \$55 per person for non-members
 - \$20 per person for students
 - Pre-registration only, no walk-ins – deadline TBD
 - ii. SR second; motion passed
 - iii. JH to confirm when to RSVP by
 - c. December Joint Meeting w/ SoCal Chapter – ED to confirm how SoCal charges other chapters
 - d. January Meeting – speaker

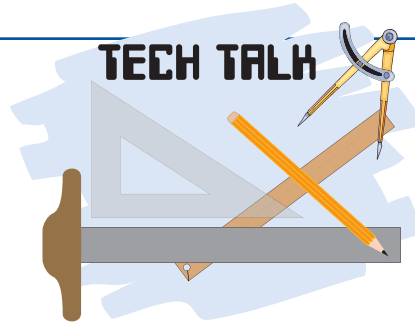
not confirmed, Matt Halsey to get back to DY on availability. DY to follow-up with Matt.

- e. February Meeting – Dan Int-Hault (DL) is confirmed. Need to confirm Dan's schedule and email directly to establish point of contact. ED to email Dan.
 - f. March Joint Meeting with San Diego Chapter – speaker not confirmed
2. Dinner Venue Discussion
 - a. September and October Meeting at Holiday Inn-Santa Ana; contract signed
 - b. November meeting at Great Wolf Lodge in Garden Grove
 - c. December meeting hosted by SoCal Chapter
 - d. January Meeting – TBD
 - e. February – TBD; looking to have it at Holiday Inn-Santa Ana, contract not signed
 - f. March – Joint Meeting with San Diego and hosted by Orange Empire Chapter

(See **SEPT MINUTES** page 4)

TAMING THE HEATING WATER SYSTEM USING OUTDOOR TEMPERATURE RESET

By Craig F. Hofferber, CxA



Heating water systems are designed and installed for matching design-day outdoor air temperatures but the partial load effects of warmer weather go unnoticed or are ignored. Every time the system turns on, the heater fires full-tilt as if every day is a design temperature day (coldest weather you experience at your location).

Initial cost may be the deciding factor when presented the choice between a lower efficiency vs. a high-efficiency modulating condensing heater. Making this choice affects how well the heating system can perform with temperatures warmer than design-day.

Installing a heater that matches the building's heat loss at design conditions makes it oversized 90% of the heating season due to warmer weather. On rise in outdoor air temperature, the heater must cycle more frequently, which adversely impacts its operating efficiency because it fires to that 180°F set point when there is a call for heating. Constant cycling of the heater causes ignitor failures and excessive wear on gas valves, combustion fans and produces acidic corrosion of the stack and heater internal components. Modulating condensing heaters help eliminate this cycling but they are limited to approximately 20% of full capacity and may need to cycle with light heating loads.

What is outdoor temperature

reset? The outside air temperature is monitored and the heater controller is programmed to reduce the supply water temperature to a temperature that just satisfies the partial heating loads. The water temperature to the heating coils and emitters varies as necessary keep the heat output almost equal to the heat loss of the building at any given time.

Modulating ultra-high efficiency heaters that can condense products of combustion commonly have outdoor reset functions built-in, yet too often, installations are found set to operate at their maximum water temperature without installing the outdoor temperature sensor. Building owners were led to believe they were getting a 95% efficient heater when in fact, the actual operating efficiency mimics that of the lower efficiency heater because of a poorly executed control strategy that does not promote condensing.

The PVC combustion exhaust piping is often found discolored due to the hot dry exhaust gas temperature exceeding its maximum safe temperature rating. Install the outdoor sensor, replace the brittle PVC exhaust pipe and follow the installation

manual to program the reset schedule. Select the design-day outdoor air temperature with the hottest water temperature; sliding down to the coolest water temperature that can satisfy the heating demand when the weather is warmer. Input for warm weather shutdown (when heating is no longer needed) provides the last required input to establish a properly operating heating system temperature control system.

Adding outdoor air reset to an existing lower efficiency boiler can be done also. A properly administered reset schedule will reduce energy consumption provided that the lowest temperature the heater is designed to work with is not violated, which will cause combustion condensation, quickly ruining a non-condensing heater. Table 1 is a sample reset schedule.

Outdoor Air Temperature	Supply Water Temperature
30°F	180°F
70°F	130°F
75°F	Heating Off

The vast majority of hydronic heating systems have heating coils and emitters that are substantially oversized. Supply water temperatures of 140°F or less can often provide adequate heating instead of the 180°F being supplied at fixed set point. Not only will the tenants be more comfortable, the fuel bill reduction will be noticed. 🍊

SEPT MINUTES*(continued from page 2)*

- i. Need to schedule and confirm with El Adobe Restaurant
- g. April – TBD; looking to have it at Holiday Inn-Santa Ana, contract not signed

- 3. Golf Tournament Discussion
 - a. Golf Tournament is currently sold out
 - b. Sponsorships are still available
 - c. Need a “Picture Guy/Gal” to help out at tournament
- 4. PO Box Discussion

- a. Need to research other options compared to USPS
 - b. ED to research on possibly using UPS and location, preference towards Santa Ana
- End of Minutes -

Eric Decker 🍊

ASHRAE Learning Institute Continuing Education Courses at the 2017 Winter Conference in Las Vegas, Nevada

The ASHRAE Learning Institute will offer 20 courses during the ASHRAE Winter Conference and AHR Expo. Classes will be held at Caesar Palace (CP) – Headquarter Hotel or Las Vegas Convention Center (LVCC)

[Click here for additional information](#)

Jan 28, 2017 – **New!** Cogeneration from the Basics through Construction & Operation (code 60) (CP)

Jan 28, 2017 – Energy Modeling Best Practices and Applications (code 61) **ES Practices** (Co-sponsored by IBPSA-USA) (CP)

Jan 28, 2017 – Commissioning Process in New & Existing Buildings (code 62) (CP)

Jan 31, 2017 – **New!** Complying with Standard 90.1-2016 (code 75) **ES Practices** (LVCC)

Jan 31, 2017 – **New!** Complying with the Requirements of Standard 62.1-2016 (code 76) **IAQ Practices** (LVCC)

Jan 29, 2017 – Laboratory Design: The Basic and Beyond (code 63) (LVCC)

Jan 29, 2017 – **New!** ASHRAE-Classified Refrigerants to Meet Society's Changing Needs (code 64) (LVCC)

Jan 29, 2017 – Understanding & Designing Dedicated Outdoor Air Systems (DOAS) (code 65) (LVCC)

Jan 29, 2017 – **New!** Variable Refrigerant Flow System Design & Applications (code 66) (LVCC)

Jan 30, 2017 – Air-to-Air Energy Recovery Applications: Best Practices (code 67) **ES Practices** (LVCC)

Jan 30, 2017 – Designing Toward Net-Zero Energy Commercial Buildings (code 68) **ES Practices** (LVCC)

Jan 30, 2017 – Energy Management Best Practices (code 69) **ES Practices** (LVCC)

Jan 30, 2017 – High-Performance Building Design: Applications & Future Trends (code 70) **ES Practices** (LVCC)

Jan 30, 2017 – **New!** Complying with Standard 90.1-2016 Appendix G (code 71) **ES Practices** (LVCC)

Jan 30, 2017 – **NEW!** Design of Affordable and Efficient Ground Source Heat Pump Systems (code 72) (LVCC)

Jan 30, 2017 – Fundamentals and Application of Standard 55 (code 73) **IAQ Practices** (LVCC)

Jan 30, 2017 – Successfully Managing the Risk of Legionellosis Using Standard 188-2015 (code 74) (LVCC)

Jan 31, 2017 – IT Equipment Design Evolution & Data Center Operation Optimization (code 77) (LVCC)

Jan 31, 2017 – ASHRAE Guideline 0: The Commissioning Process (code 78) (LVCC)

Jan 31, 2017 – Designing High-Performance Healthcare HVAC Systems (code 79) (LVCC)

CHAPTER OFFICERS

PresidentEric Decker
 President-Elect..... Kenneth Golovko
 Vice President..... Derrick Wyka
 Treasurer..... Greg Glover
 SecretaryCarlton Haywood

BOARD OF GOVERNORS

Craig F. Hofferber
 Stephen J. Rawski, P.E.
 John Sawyer
 Matthew Waller, P.E.

CRC DELEGATE

Eric Decker

CRC ALTERNATE

Kenneth Golovko

**ASHRAE
 ORANGE EMPIRE CHAPTER**

**2016-2017
 PARTIAL ROSTER**

**SPIEL DEADLINE!!
 The November deadline
 for articles or ads is
 THURSDAY,
 NOVEMBER 3, 2016!**

COMMITTEES AND CHAIRPERSONS

Attendance.....Carlton Haywood
 Electronic Communications....David Yancosky
 Golf Tournament..... Dan Davitt
 GGAC Michael Garabedian
 Historian..... Craig F. Hofferber
 Membership Promotion Jeff Hanzel
 Newsletter Editor.....Robert Hagstrom
 ProgramsDerrick Wyka
 RefrigerationDavid Yancosky
 Research Promotion John Sawyer
 Student Activities.....Margaret Peterson
 Table Top DisplaysGreg Glover
 Webmaster/Homepage Editor..David Yancosky
 YEA Chair..... Charlotte Wan Dean



**October 25, 2016
 Meeting Location Map**



HAVE YOU PAID YOUR MEMBERSHIP DUES?

We appreciate members paying their chapter dues at the same time they renew their Society membership.

If you haven't paid your dues yet, please be sure to stop by the reception desk at the next Chapter meeting and we can accept your dues directly.

Thank you!

MENU

1) CHICKEN CORDON BLEU
 Breast of Chicken Stuffed with Swiss Cheese, Wrapped in Ham, Served with Mixed Greens Salad, Scalloped Potatoes, and Seasonal Vegetables
 OR
 Vegetarian Option
 (2) PASTA PRIMAVERA
 Served with Mixed Seasonal Vegetables

Both entrees include Chef's Choice Dessert, Warm Dinner Rolls and Butter, Iced Tea, Gourmet or Decaf Coffee

PLEASE RSVP FOR THE OCTOBER 25 MEETING

by Thursday, October 20, 2016 at noon, Cancellations by Monday, October 24, 2016 at noon
(non-cancellations will be billed)

Carlton Haywood c/o Setpoint Systems Corporation

Phone (949) 396-4713 • Fax (949) 251-0787 • E-mail: chaywood@setpointsystems.com

ASHRAE member: \$40.00 | NON-Member: \$45.00 | STUDENT: \$10.00

Name(s): _____



Menu Choice:

1. 2. Company: _____
 1. 2. Telephone: _____
 1. 2. E-mail: _____

To be removed from our e-mail list, please notify Chris Tindall at (949) 296-3136 or email ctindall@mcparlane.com or Steve Rawski at e-mail srawski@semprautilities.com.

PLEASE DO NOT CONTACT THE RESERVATION LINE TO REMOVE YOUR FAX NUMBER FROM OUR LIST

ORANGE EMPIRE CHAPTER

WINTER/SPRING 2016/17 SCHEDULE

MEETING LOCATION:

HOLIDAY INN

2726 S. Grand Avenue
Santa Ana, CA 92705

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SEPTEMBER 27, 2016

Dinner: Arena Ventilation
Theme: Membership Appreciation
Place: Holiday Inn

OCTOBER 25, 2016

Technical: Optimizing Tomorrow's Steam System Through Knowledgeable Design Today
Dinner: How Not To Design a Steam System
Theme: Steam Night
Place: Holiday Inn

NOVEMBER 15, 2016

Event: Pumping System Tour
Theme: Joint Meeting with ASPE
Place: Great Wolf Lodge, Garden Grove

DECEMBER 13, 2016

Dinner: TBD
Theme: Joint Meeting with So Cal and LA Chapters
Place: SoCal Gas ERC, Downey

JANUARY 17, 2017

Dinner: TBD
Theme: Refrigeration and Membership Night
Place: TBD

FEBRUARY 28, 2017

Dinner: A New Air System Design Concept Using Chilled Boxes
Theme: Research and Past Presidents Night
Place: TBD

MARCH 28, 2017

Dinner: TBD
Theme: Joint Meeting with San Diego, Hosted by Orange County Chapter
Place: TBD

APRIL 25, 2017

Technical: TBD
Dinner: TBD
Theme: Student Night
Place: Holiday Inn

MAY 23, 2017

Theme: Officer and Board Installation and Golf Tournament
Place: TBD



Orange Spiel

ASHRAE Orange Empire Chapter
www.oeashrae.org

ORANGE EMPIRE CHAPTER

MEETING SUMMARY:

**TUESDAY,
OCTOBER 25, 2016**

DINNER PROGRAM

"How Not To Design a Steam System" by Bob Sorensen

TECHNICAL SESSION

"Optimizing Tomorrow's Steam System Through Knowledgeable Design Today" by Bill Harms

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P.O. Box 15603
Santa Ana, CA 92735