



Radiant Professionals Alliance

ANNUAL MEMBERSHIP MEETING & CONFERENCE



CATCH UP WITH YOUR RPA!

You'll be amazed at all that's happening at the RPA these days. Get updated on:

- Our new designer/installer certification program
- The industry's first hydronics and radiant code
- Get the latest energy news out of Washington

Meet with manufacturers, learn about your industry and see what's new for 2017!

in conjunction with



2017 AHR EXPO®

JAN 30-FEB 1

Las Vegas

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schedule

MONDAY,
JANUARY 30, 2017

8:00 a.m. - 9:45 a.m.

How to Sell Profitable Hydronic Radiant Systems

Location: N234

Instructors: Dave Holdorf, Wes Sisco, and Ellen Rohr

10:00 a.m. - 11:45 a.m.

No Sweat Radiant Cooling Case Studies

Location: N234

Instructors: Devin Abellon, Barry Stephens,
and Ryan Westlund

1:00 p.m. - 2:45 p.m.

How to Specify Heating and Cooling Sources

Location: N234

Instructors: Paul Rohrs, Ken Egelston, Al Wallace,
and Maya Kadi

3:00 p.m. - 4:30 p.m.

**Trouble Shooting Hydronic Radiant Systems:
*What is in the Water?***

Location: N234

Instructors: Bob "Hot Rod" Rohr, Ken Barney,
and Tom Jorn

TUESDAY,
JANUARY 31, 2017

1:30 p.m. - 3:00 p.m.

**Review of a Free Online HVAC System — Not Unit —
Energy Consumption Tool**

Location: N241

Instructors: Greg Cunniff, Rick Bostian, Mark Chaffee,
Mark Handzel, and Mark Hudoba

5:00 p.m. - 6:00 p.m.

RPA Business Meeting

Location: N238/240

RSVP by 01/02/2017 to denise.voorhees@radiantpros.org
Join us for our annual RPA meeting on Jan. 31 at 5 p.m. where we will acknowledge the efforts of our volunteers, review where we've been and determine where the organization is going, moving forward. Please join us as we look forward to seeing you there!

TUESDAY,
JANUARY 31, 2017

7:00 p.m. - 9:00 p.m.

RPA Annual Social Event

Location: Westgate Las Vegas, Ballroom D

RSVP by 01/02/2017 to denise.voorhees@radiantpros.org

Please join us for lively conversation and the introduction of numerous organization-shaping events that have taken place, along with conversation, food and drink (2 FREE DRINK TICKETS) with the Who's Who of the hydronics industry.

Presented by Plumbing & Mechanical Magazine

PM Live (Morning & Afternoon Sessions)

To register for PM Live Sessions please visit www.pmlivesymposium.com

8:30 a.m. - 12:00 p.m.

Common Errors in Hydronic System Design and Installation

Instructor: John Siegenthaler, Appropriate Designs

This session surveys a wide range of errors that occur in residential and light commercial hydronic heating and cooling systems. It will present each error, explain why it's incorrect, and show you one or more methods for avoiding or correcting that error. This approach of showing what not to do has proven to be popular and effective learning experience. If you've designed or installed hydronic systems that didn't perform as expected, this session will likely show you what lies at the heart of the problem. It's OK to make errors. It's not OK to repeat them. Come to PM Live this January to learn how to get it right the first time.

1:00 p.m. - 4:30 p.m.

Brewing with Steam

Instructor: Ray Wohlfarth, Fire & Ice Heating & Cooling

Craft beer brewers are opening at a rate of one per day and most use a steam boiler in the process. A properly designed and installed steam system can be the difference between a good beer and a ruined batch. This seminar will discuss design, installation, and maintenance of steam boilers for the brewing and distilling process. It will cover some of the following:

- *Common mistakes made with brewery steam boilers.*
- *How a steam system for a brewery differs from one for space heating.*
- *What is the proper steam pressure setting?*

education classes – Monday, January 30

8:00 a.m. - 9:45 a.m.

Location: N234

How to Sell Profitable Hydronic Radiant Systems

Instructors: Dave Holdorf, Taco; Wes Sisco, Uponor; and Ellen Rohr, Bare Bones Biz

This panel discussion will detail successful approaches from the business side of radiant heating. Has a homeowner asked you, "Why should I buy a radiant system?" Dave Holdorf from Taco, Wes Sisco from Uponor, and Ellen Rohr from Bare Bones Biz will help you answer that question and more.

10:00 a.m. - 11:45 a.m.

Location: N234

No Sweat Radiant Cooling Case Studies

Instructors: Devin Abellon, Uponor; Barry Stephens, Ventacity; and Ryan Westlund, REHAU

Industry experts will present project profiles from various applications of radiant cooling. The case studies presented will be from different climate zones. The panel will present a mix of techniques (radiant floors, and air based systems) so you know what is best suited for your next project. These will be based on real world applications with excellent results.

1:00 p.m. - 2:45 p.m.

Location: N234

How to Specify Heating and Cooling Sources

Instructors: Paul Rohrs, Lochinvar; Ken Eggelston, SpacePak; Al Wallace, Environmental Energy Corp; and Maya Kadi, Environmental Energy Corp

Do you choose the heating and cooling source for your projects, or does it pick you? This panel of industry leaders will help you determine the best fit for boilers, ground source heat pumps, and air to water heat pumps. The best systems match the figurative engine to the drive train. This group of respected experienced industry experts will help you find the best fit.

3:00 p.m. - 4:30 p.m.

Location: N234

Trouble Shooting Hydronic Radiant Systems: What is in the Water?

Instructors: Bob "Hot Rod" Rohr, Caleffi; Ken Barney, Thornton Plumbing and Heating; and Tom Jorn, Rhomar

A few good tips and tricks from seasoned heating troubleshooters can save a day of scratching your head at a job site. This panel will help save you time by sharing war stories from boiler rooms across the country. Many equipment warranties are also tied to water quality. Initial water quality is more important than most people think. Come and find out what you've been missing.

education classes – Tuesday, January 31

1:30 p.m. - 3:00 p.m.
Location: N241

Review of a Free Online HVAC System — Not Unit — Energy Consumption Tool

Instructors: Greg Cunniff, Taco; Rick Bostian, Chairman, HIA-C; Mark Chaffee, Chairman, RPA; Mark Handzel, Xylem/Bell & Gossett; and Mark Hudoba, Uponor

Under IAPMO's administration, the HIA-C (www.hia-c.org) committee, consisting of multiple HVAC equipment manufacturers including three pump companies, is delivering a Better Efficiency System Tool (BEST) using Better Energy Efficiency Rating (BEER) curves. Using the Taco Inc. Energy Analysis System Tool™ as the platform, the group has moved from unit AHRI test ratios alone to complete system ratings. BEST includes 30 predefined systems with enough agreed-upon defaults so that a design team member can compare operating and life-cycle output utilizing building specific input. The minimum information required is building size and location. Building size is used to determine loads and system configuration, and location yields relevant utility costs against bin weather data and installed system cost. As more information is defined the defaults can be changed. Because the ASHRAE Headquarters building in Atlanta has been extensively monitored, the presentation will include a review of how BEST is better with BEER.



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instructors' bios



Devin A. Abellon, P.E.

Devin Abellon, P.E. is the Business Development Manager for Engineering Services at Uponor North America. He has over 20 years of experience in the HVAC and plumbing industries with a focus on high-performance and sustainable building design and construction. He holds a Bachelor of Science degree in Mechanical Engineering from the University of California at Santa Barbara and is a registered professional engineer in California and Arizona. He is an active member of both ASPE and ASHRAE, and serves as ASHRAE Membership Committee Vice Chair, Programs Subcommittee Chair for ASHRAE TC 6.5 and as an ASHRAE Distinguished Lecturer.



Ken Barney

Ken Barney is currently a master plumber in Utah, and has been involved in this trade for more than 31 years. Barney is one of two owners of Thornton Plumbing and Heating – an 82 year old company focusing on hydronics. He specializes in evaluating systems and providing complete solutions to make systems perform better and more efficiently than ever.



Rick Bostian

Rick Bostian is currently employed by WaterFurnace International, responsible for Commercial Business Development. Born a “plumber’s kid,” graduated from Iowa State University, and after completion of military service, has worked in the HVAC industry since 1973. Beginning as a Manufacturer’s Rep, he has held multiple executive management positions in the industry. He is a US patent holder, a past member of IGSHPA and ACCA, current member of AHRI Water Source Heat Pump sub-section, USGBC, and GEO, a member of ASHRAE since 1985, and currently chairman of the Hydronic Industry Alliance-Commercial, Radiant Professionals Alliance/IAPMO. *“It is my goal as a presenter to learn from those in attendance as I do not know what I do not know...”*



Mark Chaffee

Mark Chaffee is currently the Vice President of Governmental Affairs & Sustainability for Taco, Inc. He has worked at Taco for over 20 years and during that time has held key positions in new product development, product management, brand management and business development. He also serves as an industry leader and hydronics advocate through his role as chairman of the Radiant Professionals Alliance (RPA), board member of the Hydraulic Institute and a committee chair with the Air-conditioning, Heating & Refrigeration Institute (AHRI).

instructors' bios



**Greg
Cunniff**

The Manager of Application Engineering for Taco, Inc., Greg Cunniff, PE, has published a number of technical articles in HVAC publications and authored white papers. He is also coauthor of a new textbook, "Modern Geothermal HVAC Engineering and Control Applications," published by McGraw-Hill Education.

Greg previously was a consulting engineer, a temperature controls contractor, a manufacturer's representative and a design build contractor. He has developed engineering software, continuing education programs and award winning new products. He has spoken at numerous industry events. He can be reached at grecun@bresnan.net.



**Ken
Egelston**

Ken Egelston is the SpacePak National Sales Manager. As our master class instructor, he brings over 10 years of field experience with Mestek and 5 years project management designing systems for all SpacePak products including SDHV systems, Solstice air-to-water reverse cycle heat pumps and AirCell air distribution units. Ken is a graduate of the HVACR program at Porter & Chester and has been with Mestek for the last 10 years in various capacities including research and development and agency certification. He is a licensed oil burner technician and sheet metal specialist.



**Mark
Handzel**

Mark Handzel is Vice President of Product Regulatory Affairs and Director of Building Services Marketing for Xylem Inc., Applied Water Systems Division in the Americas.

Handzel has 34 years of experience in the HVAC and plumbing industry in a variety of sales, marketing and training positions. In his current position, Handzel is responsible for product management, strategy and business development and product regulatory affairs for the company's pumps, heat exchangers, valves and controls products for use in residential and commercial buildings. He also oversees industry training programs offered at the Bell & Gossett Little Red Schoolhouse.

Handzel currently serves on the U.S. Department of Energy Appliance Standards and Rulemaking Advisory Committee Working Group on Circulator Pumps and previously served on the working group that recommended efficiency rule making for commercial and industrial pumps. Handzel graduated from the University of Illinois with a bachelor of science degree in general engineering and a master's degree in business administration.

instructors' bios



Dave Holdorf

Dave Holdorf has been in the hydronic industry for almost 20 years – specifically in the radiant heating side of the business for the better part of his career. Starting out in the technical support/design support department, he moved into the role of Engineering Manager and as a Field Technician – supporting installers and distributors with training, designing and troubleshooting. He recently took on the role of Residential Trainer/Rep Training Manager – Eastern Region for Taco, where he has started working alongside John Barba in continuing the training efforts of Taco. Before the hydronic industry, he received his B.E. in mechanical engineering from SUNY Maritime College where he worked on steam ships and received his 3rd Assistant Engineers License with the US Coast Guard. Always working with his hands, during high school and college he filled his free time at a family machine shop designing and building industrial saws. You can contact Dave Holdorf at davhol@taco-hvac.com.



Mark Hudoba

Mark Hudoba is the Director of the Heating and Cooling division of Uponor Inc. As Director, Hudoba is responsible for strategic business planning and management of the radiant heating and cooling business. Hudoba has extensive product development, marketing and sales experience in the housing and construction industries, with a proven track record in market-share growth and profitable sales for established and new product lines. He draws on his 23 years of professional experience with companies such as 3M in research and development, Andersen Windows as a product development engineer, and Wayne-Dalton Corporation as director of new business. Before joining Uponor in 2007, he was director of business development for Sage Electrochromics.

Hudoba has Bachelor of Science degrees in Mechanical Engineering and Business Marketing, both from the University of Minnesota. He earned his MBA from the University of West Florida. Additionally, Hudoba is listed as an inventor on 10 patents and has been quoted in a Wall Street Journal article featuring one of the products Hudoba invented and marketed. Hudoba is a LEED accredited Green Associate, and a professional member of the American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE), the Radiant Professionals Alliance (RPA), the U.S. Green Building Council (USGBC), the National Association of the Remodeling Industry (NARI) and the Product Development and Management Association (PDMA).

instructors' bios



**Maya
Kadi**

Maya Kadi is a Systems Design Engineer for Energy Environmental Corporation. She earned a BS in Mechanical Engineering and is a member of ASME. She is certified as an ASSE 19210 Certified radiant installer instructor with substantial experience integrating hydronic systems with multiple forced air and water-to-water geothermal heat pumps. Maya is proficient designing geothermal thermal response tests; and conducted the first commercial TC Test on a "geothermal wall" three stories below grade for a high rise building in Lebanon using Siemens equipment. Maya is fluent in three languages. maya@energyhomes.org



**Thomas
Jorn**

Thomas Jorn, National Sales Manager at Rhomar Water, is a proud member of the International Ground Source Heat Pump Association (IGSHPA) and the Radiant Professionals Alliance (RPA).



**Ellen
Rohr**

Ellen Rohr makes business UN-complicated, focusing on the few things that make all the difference to your success. As "The Plumber's Wife", Ellen nearly tanked her own family's business. Through the help of wonderful mentors, she learned how to keep track of the money ... and make more of it. In turn, she has helped thousands of entrepreneurs start, fix and grow profitable companies.

Her consulting work led to a position as president of Benjamin Franklin Plumbing, a home service plumbing franchise. On her watch, the company grew from zero to \$40 million in sales, becoming the 18th fastest growing franchise. In 2014, she and her partners started ZOOM DRAIN, a drain and sewer cleaning franchise, now operating in five states.

instructors' bios



**Bob
"Hot Rod"
Rohr**

Bob "Hot Rod" Rohr, training and education manager for Caleffi Hydronic Solutions — a hydronic, solar, thermal, and renewable energy component manufacturer — carries a big hydronics industry legacy dating back to the 1970s. A regular presenter and trainer for various trade groups, including ASHRAE, ASPE, RPA, CMX Ciphex, COSEIA, and numerous manufacturers' representatives, wholesalers and trade associations over his 30-plus year career, Rohr's hands-on experience lends itself well in his regular contributions to PHC News and Mechanical Business, where he puts his rubber-to-the-road experiences to pen.

Founder of Hot Rod & Yox Plumbing, Heating and Solar in 1978, Rohr has served as president of the RPA Board of Directors and has been an active member since 1992. A favorite speaker in the popular Coffee with Caleffi™ webinar training series, Bob delights the audience with his expertise and quick wit.



**Paul
Rohrs**

Paul Rohrs is a Design & Application Specialist and External Trainer for Lochinvar and his responsibilities include system design for Lochinvar High-Efficiency Boilers, Water Heaters and Tanks. Rohrs has been in the plumbing, heating, and cooling industry for 27 years and was previously a national award winning radiant contractor with radiant design and installation experience. Rohrs has written articles for PHC News, Plumbing Engineer, Business Mechanical, Reeves Journal, and HPAC Engineering.



**Wes
Sisco**

With more than 20 years experience in the plumbing and heating industry, and over 10 years with Uponor as factory classroom trainer and technical services representative, Wes Sisco has mentored thousands of contractors on PEX-a plumbing systems and radiant design concepts. He has also been a contributing expert for trade publications, and home improvement television shows and videos.



**Barry
Stephens**

Barry Stephens is the Northeast Regional Sales Manager for Ventacity Systems, Inc. He joined Ventacity, a startup manufacturer of very high performance HRVs, in March 2016. Prior to joining Ventacity he was the Business Development & Technology Director at Zehnder America, Inc. Zehnder is a global leader in manufacturing heat recovery ventilation systems based in Granichen, Switzerland. He led the introduction of Zehnder systems in North America, and was involved with design, installation and commissioning of these systems in projects across North America, including Solar Decathlon teams, NZE homes, Passive House projects and other very high performance buildings.



**Albert
Wallace**

Albert Wallace is the President of Energy Environmental Corporation, a Certified Georexchange Designer, Certified Energy Manager, LEED AP, and an ASHRAE member with professional degrees in Aeronautical Engineering, Architecture, and Landscape Architecture. He was recently awarded a U.S. patent for optimizing the energy efficiency and comfort performance of geothermal heat pumps integrated with radiant floor heating and cooling hydronic systems. Al served on the technical committee that created the 2015 Uniform Solar Energy & Hydronics Code through the International Association of Plumbing and Mechanical Officials.



**Ryan
Westlund**

Ryan Westlund is the Business Unit Manager of Commercial Projects within the Building Solutions Division at REHAU's North American headquarters in Leesburg, Virginia. Westlund holds a bachelor's degree of science in mechanical engineering from Rose-Hulman Institute of Technology, as well as a technical translation degree in German. He holds a master's degree of science in Sustainability Management from American University's Kodog School of Business.



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