

# ASPE Richmond Chapter NEWS

## March 2013



**Next Scheduled Meeting (see menu on page 2)**

**Date: April 1, 2013**

**Time: 11:30 am - 1:00 pm**

**Place: The Holiday Inn Express -**

**9933 Mayland Dr.**

**Richmond, VA. 23233**

**Speaker: Seamus Cussen**

**Topic: Solar Thermal History and Background**

**Price: \$20.00**

### President's Report

Tina Capece, CPD – Chapter President

So much to talk about I really don't know where to begin. Last month we had a our joint meeting with SFPE, we had over 30 that attended and as always it's was nice to see SFPE and old friends.

There are a few events going on this month that I would like to mention:

First: Ben Johnson of Viking, is having an Open House with classes that are not only informative but are certified to give CEU. Some of the topics are Seismic Bracing and Calculations, Nitrogen generating systems, Special Hazards foam systems and CPVC and much more. Please if you take a chance review the open house flyer on page 4.....

Second: VPMIA - Virginia Plumbing & Mechanical Inspectors Association are having a Conference - 50th Annual School of Instruction Program, April 3-5 where they will be offering classes such as Gas Press fittings, CaptiveAire CORE fire Suppression, NFPA 72-2007 Edition Code Changes, Highland Tank - Rainwater Storage, Hilti Fire Stop Systems, Commercial HVAC variable refrigerant flow zoning systems, Watts Water Filtration systems.....Please see page 5 for our Administrative Sec. Jay Otto's report and page 6 or go to [www.vpmia.org](http://www.vpmia.org) and click on the Conference Agenda

Continued on page 2

ASPE - Richmond Chapter Newsletter - February 2013

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Μένυ φoor Μarχη μeeτιny  
TBA

## Contest !!!! *Each Month*

We will collect your business card at the door and randomly select one card, if your card is selected you will receive a \$20.00 and your card will be advertised in the newsletter. Last month winner is below.....

We didn't have a drawing this month.

## Continued President's Report

The table-top are the following sponsors for last month's meeting - **Jay Otto of Otto Sales** - **Craig Parker of Carotek, Inc.** (he was a sponsor only last month) - **Bill Lesemann of WG Lesemann and Son** - **Trey Anderson of TLA** - **Peter Pastore of RMI**

This month's meeting is on the Solar Thermal History and Background and will be presented by Seamus Cussen who is the Vice President of Kingspan Solar INC. He will discuss the Different types of solar thermal collectors, system components, designing and sizing of solar thermal systems, case studies and much more. Please read Eric Scotts Technical report for more information on our speaker and his topic.

We will be voting at this meeting so that we can announce the board at our last meeting in May.....Please let me know if you want your name on the ballot

As I mention I want to add the use of credit cards and I will be working on that over the summer so that we will be able to accept credit cards on our web page for the meetings, advertisements, and book orders for as long as they are available.

I'm sorry for the delay on the book order but they have been put in and we hope to have them soon.

I look forward to seeing you this month - PLEASE IF YOU HAVE NOT ATTENDED THE MEETINGS THIS YEAR PLEASE TRY TO COME THIS MONTH.....

REP's PLEASE IF YOU CAN - INVITE SOMEONE THAT YOU KNOW HAS NOT BEEN TO ANY OF THE MEETINGS.....**WE WILL GIVE A DOOR PRICE TO FIRST 8 MEMBERS THAT COMES TO THE MEETING THAT HAS NOT ATTENDED THIS YEAR**

Tina Capece, CPD  
President  
ASPE Richmond Chapter

## Membership Dues Hardship Waiver

Society offers a hardship waiver for members who have lost their jobs. Go to [www.aspe.org](http://www.aspe.org) for more details on applying for this benefit.

You may not think this helps, but it allows a member to stay active and take advantage of ASPE programs, both local and national.

## Technical Report

Eric C. Scott, CPD

We would like to thank everyone who came out to the Joint SFPE - ASPE March meeting. A special thanks to Daniel Kobb, PE of CCRD for speaking about "**Clean Agent Fire Extinguishing Systems Application and Updates**".

Thanks to all of our meeting sponsors for providing the table top displays.

The topic and speaker for April 1, 2013 will be "Solar Thermal Water Heating Systems" as presented by Seamus Cussen; VP of Kingspan Solar Inc. The presentation will cover:

Solar Thermal History and Background

Different types of solar thermal collectors

Different system components

Design & sizing of solar thermal systems

Case Studies

Economics of solar thermal including rebates available

I would like to invite everyone to provide me feedback on the topics presented monthly and if there is a topic you would like to learn more about please let me know. Please contact me at [e.scott@ha-inc.com](mailto:e.scott@ha-inc.com).

## CLASSIFIED AD

### H&A. Advancing the built environment!

**H&A Architects & Engineers** is a multi-disciplined, full-service consulting architectural and engineering firm with offices located in Richmond, VA; Virginia Beach, VA; and San Diego, CA. At H&A we create a built environment that enables people to succeed! Our core principles and strong focus on client relationships have us committed to providing groundbreaking answers for diverse and challenging questions. Join H&A and you will become part of a team of innovative thinkers and some of the industry's most talented individuals. Using cutting edge technologies, renewable energy systems, and an emphasis on quality we are **designed for success!** At H&A we are not just committed to enabling our clients to succeed... we are committed to our team succeeding by creating a friendly, yet challenging environment, offering competitive benefits, and developing talent through training and growth opportunities.

We are seeking a dynamic **Plumbing Designer** that shares our vision and is seeking an exciting and rewarding career! Responsibilities include designing plumbing systems such as sanitary, storm, and water systems. He/she will also design a variety of energy and water-saving systems including rainwater harvesting, greywater, and solar thermal systems.

#### Requirements:

- 5+ years experience
- Specific knowledge of plumbing systems including sizing of piping in accordance with the International Plumbing Code
- 2+ years of experience with Revit, including multiple complete (start to finish) projects
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- The ability to obtain a government security clearance

Qualified candidates may apply online at <http://ha-inc.com/careers/openings/> Employer maintains a drug-free workplace! EOE, M/F, D/V



Open House | You're Invited!



## Fire Protection Technology Open House

You are invited to attend an exclusive Open House event at Viking SupplyNet. Viking, FireFlex, Tolco, and Lubrizol will be giving seminars that you may submit for continuing education hours. Additionally, Viking's business partners will be displaying their products throughout the day. Food and beverages will be provided along with tours of Viking's distribution facility including their steel pipe fabrication center.



### Date

Wednesday, April 3, 2013

### Time

8:30 am - 5:00 pm

### Location

Viking SupplyNet  
4593 Carolina Ave.  
Richmond, VA 23222  
Phone: (804) 228-1107



### Schedule of Events

9:00 am - 10:15 am

*Louis Bergeron of FireFlex will conduct a seminar on the complete line of TotalPac® systems including the new TotalPac® 2 seismic option, TotalPac® X designed for outdoor installations, and ICAF compressed air foam systems.*



10:30 am - 11:45 am

*Eric Grant of Tolco will conduct a seminar on seismic bracing and calculations.*

12:00 pm - 12:30 pm

*Molly Hollifield of South-Tek Systems will conduct a seminar on Nitrogen generating systems.*



1:30 pm - 2:45 pm

*Bryan Berkley of Viking will conduct a seminar on special hazard foam systems.*

3:00 pm - 5:00 pm

*David DeAngelis of Lubrizol will speak about CPVC.*

**RSVP by March 27, 2013 to Jason Tomlin at [jtomlin@supplynet.com](mailto:jtomlin@supplynet.com)**



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## **Administrative Secretary**

**Jay Otto**

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The 50<sup>th</sup> Annual VPMIA School of Instruction is being held in Richmond April 3 & 4, 2013, addenda and location is attached. The Virginia Plumbing and Mechanical Inspectors Association ( VPMIA ) School of Instruction offers the opportunity to meet inspectors from across Virginia for fellowship and discussion of various code issues. We are blessed to have VPMIA members who are also influential in code associations across the United States including ICC. The School of Instruction combines the unique opportunity to meet with code officials, manufacturers, and earn valuable CEU's. Please do not miss this opportunity. ASPE and VPMIA share many common goals. Both associations could benefit greatly from working closely together. This is a great chance to get the ball rolling. If you have any questions I would be happy to talk with you.

### **VPMIA Named Chapter of the Year**

**The Virginia Plumbing and Mechanical Inspectors Association (VPMIA) was the recipient of the 2011 Chapter of the Year Award during Wednesday's Awards Luncheon at the 2011 ICC Annual Conference in Phoenix. Chapter Merit Awards were presented to the Code Administrators Association of Kentucky (CAAK) and the Northwest Building Officials and Code Administrators (NBOCA) in Illinois.**

**To earn the Chapter of the Year honor, a Chapter must demonstrate a high degree of professionalism in promoting the vision, mission and goals of the Code Council. The Chapter distinguishes itself through the development and implementation of programs designed to increase the professionalism of its members and code officials everywhere, and participate in local, state, regional or national activities to increase the public awareness of safety in the built environment.**

**"Since its inception in 1962, VPMIA has been very active in code development and other professional activities," Awards Committee Chairman Gregori Anderson said. "The Chapter holds instructional meetings where attendees can earn CEUs, and participates in Virginia's state code academy, providing instructors and curriculum development, and teaching more than 30 classes."**

**"The Chapter of the Year Award is only accomplished through the hard work of your members," said VPMIA President Bane Compton. "I hope by winning this award it will inspire the future member of our organization to make the same accomplishment."**





## **VPMIA 50<sup>th</sup> Annual School of Instruction Program**

**April 3-5, 2013**

**Holiday Inn**

**Richmond International Airport**

**445 International Center Drive-Sandston-VA 23150**

**Please note: Wednesday dinner and Thursday night banquet  
will be at The Hilton Garden Inn located at:  
441 International Center Drive, Sandston, Virginia, 23150**

### **Wednesday April 3rd**

**7:00-8:15 Registration**

**8:30-10:00**

**Ed Warwick-Viega LLC-Fuel Gas Press Fittings**

**10:00-10:30 Break**

**10:30-12:00**

**Brian Liles-CaptiveAire CORE Fire Suppression**

**12:00-1:00 Lunch (included with registration)**

**1:00-2:30**

**Doug Ridgeway-SimplexGrinnell /NFPA 72-2007 Edition Code Changes**

**2:30-3:00 Break**

**3:00-4:30**

**Clint Davison -Orion Pipe-Polystar Polypropylene Piping System**

**5:00-6:00 Presidents Welcome**

**6:00-7:30 Buffet Dinner (included with registration)**

**(Served at The Hilton Garden Inn)**

**7:00-11:00 Casino Night (1 Craps Table,**

**8 Blackjack/Poker Games, 2 Roulette Games)**

**(Setup in The Holiday Inn)**

### **Thursday April 4th**

**8:30-10:00**

**Michael Gauthier-Highland Tank-Rainwater Storage**

**10:00-10:30 Break**

**10:30-12:00**

**Adam Reinhold-Hilti Fire Stop Systems**

**12:00-12:15 VPMIA General Membership Meeting Part 1**

**12:00-1:00 Lunch (included with registration)**

**1:00-2:30**

**Ryan Anderson-Commercial HVAC variable refrigerant flow zoning systems**

**2:30-3:00 Break**

**3:00-4:30**

**Stephen Callahan-Watts Water Filtration Systems**

**6:30-10:00 Banquet (included with registration)**

**(Served at The Hilton Garden Inn)**

### **April 5th**

**8:00-9:00 Breakfast Buffet (included with registration)**

**9:00-12:00 General Membership Meeting Part 2**

## ASPE HAMPTON ROADS CHAPTER Meeting April 3rd

### Note from Chad Luettel.....

The Hampton Roads satellite chapter has been going extremely well. We appreciate all the support we have been given, and look forward to the future monthly meetings. We have found out that there is definitely a learning curve associated with starting a satellite chapter! We are still moving along getting the paper work and financial matter aligned, but we are continuing to make progress. Thanks Tina for the support!

Next month we will be having Lynn Underwood speak on the upcoming code changes associated with the IPC and state codes. He works out of the City of Norfolk as a code official.

We encourage everyone to attend this meeting as the upcoming code changes will affect our current and future design projects. We will have an open question/answer following the presentation.

Best regards

For information on joining the chapter, email Chad Luettel ([cluettel@bfa-eng.com](mailto:cluettel@bfa-eng.com)) or Rick O'Berry ([roberry@bfa-eng.com](mailto:roberry@bfa-eng.com)).

### Project Highlight

#### Henrico's H&A wins Pinnacle Award

H&A Architects & Engineers of Henrico County won the Virginia engineering profession's top award for its design of the U.S. Embassy in Monrovia, Liberia.

The 2013 Pinnacle Award was presented by the American Council of Engineering Companies of Virginia at a ceremony Thursday night at The Jefferson Hotel in Richmond.

H&A won the award for its mechanical, electrical and structural engineering of the 785,766-square-foot embassy.

The location of the structure on Liberia's rocky coastline presented challenges. Also, the site has no reliable municipal sources of power or water, making conservation and self-sustainability a must. H&A implemented a rainwater collection system that allows the embassy to meet almost all its potable water needs.

A photovoltaic system on a parking canopy structure generates emission-free electricity annually. Total electricity use was reduced by implementing a combined power and cooling approach, reusing heat energy that otherwise would have been wasted.

H&A achieved LEED (Leadership in Energy and Environmental Design) Gold certification for its design, one of the highest ratings for energy efficiency.



H&A Architects&Engineers

H&A won the 2013 Pinnacle Award for its mechanical, electrical and structural engineering of the U.S. Embassy in Monrovia, Liberia.

## ADVERTISING MORE THAN HALF PRICE

### Newsletter Advertising:

- Rates based on ad size and will include the following:
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## Newsletter Advertising Prices cut more than half for the final 2 months rates.

Please refer to the adjacent summary for available advertising space and associated fees in the monthly ASPE Richmond Chapter newsletter. Ten (10) newsletters will be published and issued to the Chapter membership and associated industry firms in the Richmond area each ASPE calendar year (September through June). Rates will be prorated for advertising beginning mid-year.

If interested in advertising in the newsletter, please contact the newsletter editor,

Tina Capece , by telephone at

## Monthly Sponsorship Opportunities

The Richmond Chapter of ASPE continues to have successful meetings and is looking to continue improving throughout the year. The strong foundation that began in September is the springboard for an even better year than last year.

Last year the Chapter initiated the following sponsorship opportunities that were well received:

**Door Prizes** - Miscellaneous door prizes given away at the monthly meetings for no cost to the attendees. This includes announcement in the newsletter, multiple email notices of the meeting and announce-ment at the monthly meeting sponsored.

**Tabletop Presentations** - Opportunity to provide a tabletop presentation of equipment or material relative to the plumbing profession for a monthly meeting. The tabletop will be set up from beginning to end of the monthly meeting. Cost is a door prize to be raffled to the attendees. This includes announce-ment in the newsletter, multiple email notices of the meeting and announcement at the monthly meeting sponsored.

If you are interested in any of the sponsorship opportunities listed above OR any other opportunities to sponsor please contact Tina Capece, CPD

[tcapece@ha-inc.com](mailto:tcapece@ha-inc.com)



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**2nd Place**

## **QuantumFlo, Inc.**

### **iQFlo**

**I**ntroduced in April 2012, this automated process is designed to optimize pressure to the inconsistent demands of facilities' contingent pumping situations.

The new operating system, iQFlo, uses an exclusive QuantumFlo algorithm that eliminates typical PID problems in variable speed pressure control. It also enhances power savings and system energy performance, helping in efforts to reduce the carbon footprint of inefficient competing pumping packages. With many facilities seeking solutions that comply with regulations and save money, QuantumFlo's iQFlo offers a cost-effective solution to fill the needs of the market.

The innovation of the iQFlo stems from the new technology that the company developed, as well as realizing the weaknesses of systems currently used in the market. QuantumFlo's new technology ensures short payback periods on pump retrofits and new pump packages using the new iQFlo system, making it an easy investment for decision makers in the industry. Representative partners are available to recommend the most efficient and effective solutions for project managers, architects and industry consultants.

Although variable speed technology has significantly reduced the cost of pressure boosting over the past 10 to 15 years, many manufacturers who developed these systems based their basic sequencing on their existing "constant-speed" controllers. Constant speed controllers simply look at the system pressure, and if it drops, the pump turns on. If the system pressure is constant for a pre-configured time, the system turns off and the process is reset.

Properly designed variable speed controllers are designed to only consume the exact amount of energy required for a given demand by applying a percentage of pump energy. Constant speed is like driving your car with the gas pedal to the floor and regulating the speed with your brake pedal. Variable speed understands that, by changing the fuel consumption, such as backing your foot off the gas pedal, that significant energy savings can be realized. This time, when other pumps are running at full speed but there is no longer a demand, is called stand-by losses. This is time that the pump is waiting for a timer to tell it to shut down.

Since variable frequency drive (VFD) control regulates the energy consumption all the time, these stand-by losses are mitigated. Unfortunately, due to inexperience with VFD control by the industry, nearly all manufacturers still use these timers to wait for a time to begin forcing a reduction in speed (therefore energy) since the control technology is still based on

constant speed systems.

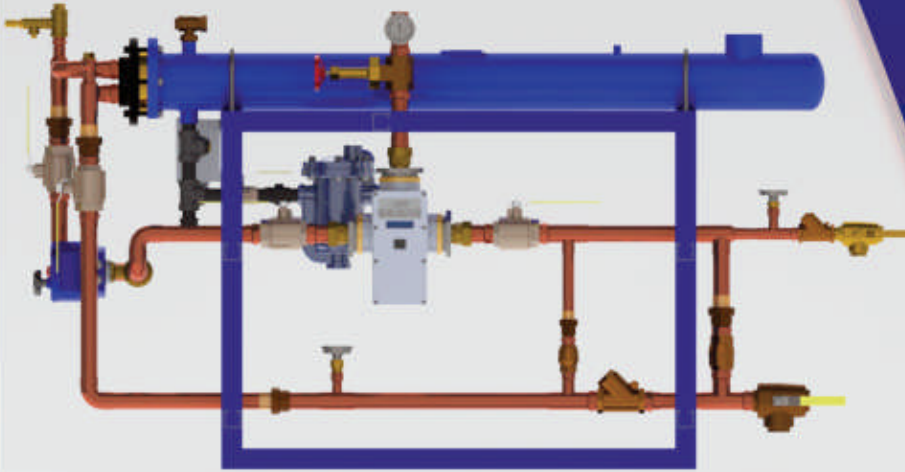
In addition to the wait-time, most VFD-based PID algorithms will stall when the pressure is at a steady-state condition (neither high nor low versus set point) causing the system to remain in this stand-by loss condition rather than reducing to minimum speed. These two conditions are (in many cases) the difference between a 50 percent energy reduction and an 88 percent energy reduction with iQFlo. To truly capitalize on the energy efficiency of the drive, deliver lower life-cycle cost and improve payback revenue, the stand-by loss component must be addressed.

iQFlo is a departure from the standard technology, which takes existing firmware on the drive and basic sequencing code and makes it work as well as possible to sequence the pumps on or off when demand is present or void. Nothing has been customized to address the stand-by losses because the software in the VFD is rudimentary and general. iQFlo has taken this software off the VFD and developed a new solution with special algorithms designed to eliminate stand-by losses and increase the speed at which the system cost is recovering costs since it is evaluating the energy impact of the system every 10 milliseconds, changing the speed and impact of the energy usage continuously. This software takes the control off the drive and centralizes all decision-making within the programmable logic controller (PLC), which operates at speeds up to 100 times faster than the firmware loaded on the VFD.



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## PRODUCT DESCRIPTION

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Emergency Shower and Eyewash Equipment, Portable Safety Products, Tempered Water Systems, Freeze Protected Showers and Water Blending Solutions

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Ultrasonic Humidifiers, Mist-Free, Mist-Pac, Stainless Steel

Reverse Osmosis, Deionized Water and High Purity Water Systems

Flat Plate and Evacuated Tube Collectors for Solar Thermal Water Heater Systems

Thermostatic Mixing Valves for Domestic Water and Emergency Equipment, Combination Temperature and Pressure Valves, Photographic Control Valves

Pex Tubing, Hydronic Floor Heating, Snow Melting, Radiant Systems

ASME Water Heaters For All Energy Sources, Storage Tanks, Instantaneous Water Heaters, Flex Fuel Heaters using Solar, Geo-Thermal, Waste Heat & Switchable Fuels

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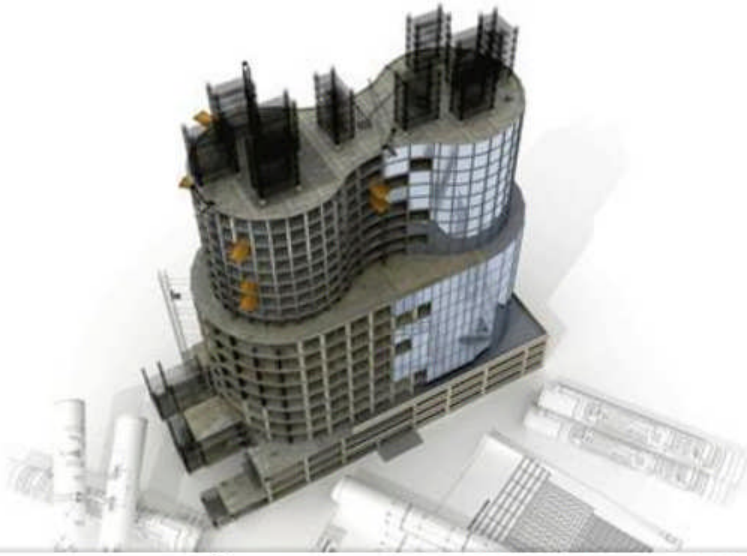
**John Largen**

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