



# ASPE NEWS

American Society of Plumbing Engineers

## Eastern Michigan Chapter

[http://aspe.org/Eastern\\_Michigan](http://aspe.org/Eastern_Michigan)

Serving our membership since 1975

Vol. 13, Issue 8

### Plumbing Design Classes

**Date:** Tuesday, April 20, 2010  
**Where:** Plumbing Industry Training Center  
*SEE map on back page*

**ASPE HANDBOOK & VENDOR CLASSES**  
**3:30 - 5:30 PM**

**Basic:** Natural Gas Systems D & E  
**Vendor:** Toilet Flushing Technologies (CEUs)  
**Speaker:** Pat Baker, Kohler Company  
*See page 3 for program & speaker*

**DINNER**  
**5:30 - 6:00 PM**

**Cost:** ASPE, ASSE, MBPA Mbrs: NC  
 Non-members: \$15.00 FOR DINNER

**DESIGN CLASS**  
**6:00 - 8:30 PM**

**Topic:** Practical Design & Implementation of Water Reuse Systems

**Speakers:** Michael Gauthier & David Carrier  
*See page 3 for program & bios*

*See the full event schedule on our web site.*

**REGISTRATION REQUIRED**  
**RSVP by the Friday prior to day of class to:**

**David Rhodes, VP Tech:**  
**[drhodes1vptech@aol.com](mailto:drhodes1vptech@aol.com)**

### inside...

ASSE Annual Meeting Photos .....6  
 April Programs & Bios .....3  
 Ed's Perspective .....5  
 Sponsors Listings .....6 & 7

## PRESIDENT'S REPORT

John R. Nussbaum, IPP, FASSE



### LEADERSHIP

Lee Iacocca wrote a book awhile back called *Where Have The Leaders Gone*. I ask, Where are your future leaders going to come from?

Your board members are aging and tiring after many years of serving you, the membership. The Eastern Michigan Chapter has had some fine leaders over many years since its beginning. They encouraged and mentored people like myself and others to fill the board positions as time went on. In recent years, I find

it harder to find people to mentor and encourage serving and running for offices on the board of directors. It seems like every organization and outside activities compete and keep the younger people from wanting to take on these vital positions needed to keep the chapter going.

There are leaders and followers in our everyday lives. Are you a leader or follower? Both are necessary. PE's and CPD's are needed to run for President, VP Technical, VP Legislative, VP Membership and other positions while any one can fill and serve on the board as secretary, treasurer and just be on the board to help run the chapter and participate in the decision making policies of the Eastern Michigan Chapter. Even if those of us are reelected to serve another year, some of us are sure to make it our last year. The question is who is willing to come forward, be appointed and mentored to run for a position in May of 2011?

Currently, we have some talented people in several positions. They are doing a good job of running the chapter. One individual is being mentored by his dad. Your VP Technical is being mentored to possibly run for President in 2011. Year 2011's election will need people to fill some important positions that will be vacated. Please, those of you who have leadership qualities— we need you. Your chapter needs you if we are to remain the dynamic chapter we have been since being chartered by ASPE.

In closing, I wish to thank David Rhodes and Edwin Hawley for filling in for me during the meetings that I was unable to attend because of a very bad cold, and secondly, my wife's fall resulting in an emergency partial hip replacement. Thank you to all who pitched in to make the meetings successful.

*Your president,*  
*John Nussbaum*

# SPEAKMAN®

## INNOVATIVE PLUMBING SOLUTIONS

	<b>Low Flow Shower Systems</b> GREAT PERFORMANCE AND SAFETY AT LOW FLOWS	
	<b>Vandal Resistant Sensor Faucets</b> ALL-IN-ONE FAUCET - ALL COMPONENTS ABOVE COUNTER	
	<b>Combination Eyewash Faucets</b> TWO PRODUCTS - ONE INSTALLATION - 100% COMPLIANT	
	<b>Battery-Operated Flush Valves</b> EASY INSTALL - SIMPLE MAINTENANCE - ALWAYS FLUSHABLE	
	<b>No Lead Commercial Brass</b> WE GOT THE LEAD OUT	

V.E. Sales Co Inc.  
25200 Jefferson Ave.  
St. Clair Shores, MI 48081-2347  
Phone 586.774.7760

**SPEAKMAN®**  
*Absolutely the best.*  
www.speakmancompany.com/engineering  
sales@speakmancompany.com

## WANTED

### Mechanical Engineer (PE)

Qualified candidate must have 7-10 years of experience in the engineering and design of HVAC, plant utility (heat transfer systems), plumbing and compressed gas systems for pharmaceutical, biotech, laboratory, food processing or other high tech industries. Engineering capabilities to include development of design documents (P&IDs, distribution plans, specifications, etc. for construction). Proven ability to manage projects to implement these systems is a must. Candidate should be a self-starter and possess excellent leadership, communication and computer skills. Candidate should have proven ability to handle multiple complex tasks, ability to market services to clients, and have business and personnel skills.

#### Qualifications:

7-10 years experience - Bio-Pharma / Lab Experience - PE registration preferred - Bachelor of Science, Mechanical Engineering or Architectural Engineering - Project Management experience - LEED AP preferred - Team oriented individual

Tony Barhoum  
Recruiting Manager  
Futures Consulting, LLC  
1211 N. Westshore Blvd. Suite 501  
Tampa, FL 33602  
Tbarhoum@futuresconsult.com  
www.futuresconsult.com  
Tel. (813) 333-9880 ext. 110  
Fax (813) 443-5862



**H<sub>2</sub>O  
fanatic  
#139**

She composts. Collects rain water in barrels. Recycles everything. Buys green energy from the power company. Drives a hybrid. Kristin cares about the environment. But not about which brand of faucet you installed in the executive bathroom—only that it saves water. She doesn't care that you chose an electronic T&S faucet that is one of the most water-efficient out there, or that it's built to legendary T&S quality standards. She just wants to wash her hands with as little water as possible. Help Kristin save the world. Use T&S.



contributing  
to LEED  
certification

**RELIABILITY BUILT IN™**  
www.tsbrass.com • 800.476.4103

T&S plumbing products represented in Eastern Michigan by:  
Diversified Spec Sales - 248-398-2400

## April Tech Program

### Practical Design and Implementation of Water Reuse Systems



Michael Gauthier

Michael Gauthier, Division Manager Highland Tank & Manufacturing Company, has over 17 years experience in the water/wastewater industry. Employed with Highland Tank for over 8 years, Michael has been instrumental in the development and engineering of new products for the waste water division. Highlights include development of Highland Tank's HighDRO™ line of water reuse systems. Michael is also co-author of Vol-4 ASPE Plumbing Engineering Design Handbook Chapter 8: Grease Interceptors.

Design Handbook Chapter 8: Grease Interceptors.

**Program:** The presentation will deal with design tools to engineer efficient water reclamation systems for non potable applications under the framework of LEED. Reclamation from rain, grey water, cooling condensate and wash water will be discussed. Discussion will deal with design, sizing, storage, disinfection and transmission of non potable water. Available LEED points for water reuse systems will round out the discussion.

David Carrier is founder and CEO of QuantumFlow, Inc. For the past 23 years, David Carrier has worked in the packaged pumping systems market. He started as an independent representative in 1984 calling on engineers and contractors. As one of the top sales agents in the country, he was asked to create and develop a packaged systems product line for a major pump manufacturer in 1992. After successfully deploying a national marketing and production organization, he joined a controls manufacturer in 1997 only to return to packaged



David Carrier

systems production in 2001. He is the author of several publications regarding packaged pump systems, specializing in the application and promotion of variable speed pressure control. He spoke on behalf of variable speed design during the 1996 ASPE (EPE 2006) National Convention in Tampa, FL. As one who understands and enjoys the market, David is the "hands-on" director for all engineering, sales and marketing of QuantumFlo, Inc. of DeBary, FL in addition to being its Chief Executive Officer.

**Program:** In follow-up to Michael Gauthier's presentation on Rainwater Reclaim, David will "fill in the blanks" with regard to the filtration and pump controls involved in these highly adaptable systems.

#### WANTED

Looking for a **plumbing designer** with 5 years experience for MEP firm in Virginia. If you are available or know of anyone, please contact Nancy Benamati at:

Benamati & Associates \* Recruiting Professionals  
5239 Copperleaf Circle \* Delray Beach, FL 33484  
561-865-2352 \* nben@att.net \* www.benamatiassociates.com

## April Vendor Program

### Toilet Flushing Technologies



Pat Baker

Pat Baker has been involved with the plumbing industry for the past thirty years, working at the contractor, wholesaler and manufacturing levels. For most of his career, Pat has been involved with architects, mechanical engineers, mechanical contractors, interior designers, builders and distributors. Pat has held sales and management positions with Kohler Co. over the last twenty eight years. Pat is an active member of the United States Green Building Council, and the Southeast

Michigan Building Industry Association. He takes a technical and non-technical approach to plumbing fixtures, design, installation, and current statewide codes, in order to assure everyone has a clear understanding of the topic at hand. His techniques include Power Point presentations as well as hands-on materials to maximize the audience's understanding of the category and to ensure everyone takes away a real world application of the information presented.

**Program:** Understand the key questions that need to be answered prior to specifying a toilet. Know the different design styles toilets are now offered in. Comprehend the various flushing technologies available in the market today. Be aware of the codes and standards for toilets and how they impact what you specify. Understand how technology has been integrated into sanitary products and how to recommend the correct toilet that will exceed client's expectations. This is a CEU course for AIA, NKBA and IIDA.

**SLOAN**  
FIXTURES  
INNOVATION... SPECIFICATION... SLOAN

**SLOAN**  
URINALS  
WEUS-1000, 1201-0, 13 SOLIS

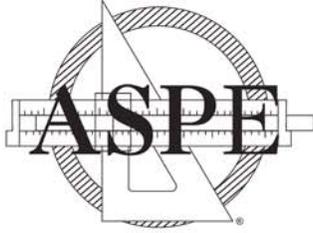
**SLOAN**  
TOILETS  
WETS-2002, 1101-1.6/1.1 ECOS

**SLOAN**  
LAVS  
SS-3003

Visit [www.sloanvalve.com](http://www.sloanvalve.com) for more information.

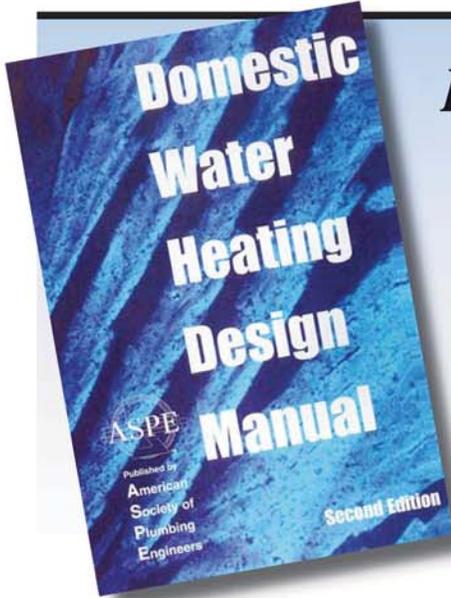
**SLOAN**  
866-663-2289 [www.sloanvalve.com](http://www.sloanvalve.com)

**DIVERSIFIED SPEC. SALES**  
248-398-2400



# American Society of Plumbing Engineers Eastern Michigan Chapter

14801 West Eight Mile Road ▲ Detroit, Michigan 48235  
(313) 341-7661 phone ▲ (313) 341-1007 fax  
<http://eastern-michigan.aspe.org>



## Domestic Hot Water System Design

Tuesday, April 27, 2010

Plumbing Industry Training Center

1911 Ring Drive  
Troy, Michigan 48083

**8:00 AM - Registration**

Includes continental breakfast

**8:30 AM - 12:30 PM - Seminar**

Cost: \$70 per person/ includes the manual

The first 25 prepaid registrations by present ASPE EMC members will be refunded the cost of the manual (\$30).

Non-member cost: \$100

Special Offer: \$220 gets you a membership in ASPE in addition to the seminar and manual (*SEE enclosed application form*).

Get registration form and ASPE membership application on our web site.

The Domestic Water Heating Design Manual addresses the need for standard, rational methodologies in the field of plumbing engineering. Written and extensively reviewed by plumbing engineers and designers, this book is the most comprehensive guide to the sizing and design of domestic water heating systems. It offers a rational approach to the design of cost- and energy-efficient systems for a wide variety of uses and building types. This Manual, a publication of the American Society of Plumbing Engineers, presents the most up-to-date knowledge and information.

When designing a hot water supply system the plumbing designer is faced with making many decisions and assumptions. This course will explain the different types of loads, water heating systems and sizing resources available. The course will cover load calculations, thermal expansion concerns, multiple temperature systems, re-circulation rate calculation, relevant sections of the International Plumbing Code and total system design. The designer of hot water supply systems has a variety of information resources available when designing and selecting a hot water supply system. The available references include ASPE, ASHRAE and various computer aided sizing programs from equipment manufacturers and others. The latest ASPE Domestic Water Heating Design Manual will be discussed in depth and used as the basis for the class. Participants in this course will learn how the various types of resources compute the loads for several design examples. They will compare the results and develop a sense of "practical knowledge" as well as an understanding of how the computerized selections are made. These exercises will be completed for storage type, instantaneous and semi-instantaneous water heating systems. A comparison of which type of system should be used relative to the load being served will be presented.



Alan Deal, PE, is president of Performance Engineering Group, Inc. Performance Engineering Group has been actively involved in designing and marketing domestic hot water systems, hydronic radiant heating systems since 1964.

## REGISTER TODAY!

Questions? Contact Cassie Mudloff at (313) 341-7661 ext. 205 or e-mail [cmudloff@mcadetroit.org](mailto:cmudloff@mcadetroit.org). Fill in the seminar form (and Membership application) and mail with check made payable to ASPE EMC to: ASPE Seminar, 14801 West 8 Mile Road, Detroit, MI 48235

NAME

COMPANY OR AFFILIATION

ADDRESS

TELEPHONE NUMBER

FAX NUMBER

Credit cards are not accepted. Registrations will be taken in the order they are received—**only** by mail accompanied with full payment.

\$

AMOUNT ENCLOSED

No.

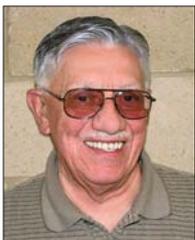
CHECK NUMBER

CITY / STATE / ZIP CODE

E-MAIL ADDRESS

# Ed's Perspective

By Ed Hawley, CPD



## VARIABLE SPEED PUMPING

The March program, presented by Reese Robinson, started by showing an end suction booster pumping package on skids, and in comparison to the three vertical multistage pumps packaged on skids booster system, plus a couple variations, and a few end suction types pump and system packaged types—

7 in total of different configurations, complete

with control panel for the necessary controls, for the speed of pumps, the pressure in PSIG, and required power.

These were the basics of electric motor pump delivery systems, followed up by a panel devoted to the “Cost of Ownership”, showing a break down of where the dollars are spent in the pumping systems: 85% for power consumption, 7% for maintenance, with only 8% for the total investment, generally speaking the cost of most systems. This is a very important fact for the selection of pumping systems.

The Hydraulic Institute panel makes a visual illustration of where each of the types of pumping systems in the schemes and the position where each type of pumping system compare for the best deliveries of total head in feet and rate of flow in gallons per minute. Reciprocating pumps, single stage centrifugal pumps, high speed and multi-stage pumps, verses the all in multi-stage pumping systems. The winner, according to the position on the pump curve, is shown to be the multi-stage pumping system, because of the efficiency percentage (%) and flow in GPM.

At this point we were introduced to the Pump Systems Assessment Tool (PSAT), a computer program to aid in making the correct selections of pumps and their position to certain Conditions A and Conditions B, to the Documentation column, a quick way of pumps selections.

A couple of good books on pumps can be ordered online: *Variable Speed Pumping Guide* ([www.pumps.org](http://www.pumps.org)), and *Pump Life Cycle Costs* ([www.europump.org](http://www.europump.org)).

VFD Pump Control—Why variable speed control? 1. Reduced energy costs, 2. Reduced maintenance costs, 3. Longer system life, 4. Better process control, 5. The increased comfort.

Drives, in particular, can be continuously adjusting the speed of a motor to match what is required. Provide a gentle ramp up to speed to eliminate the surges caused by starting a motor both electrically and hydraulically. Provide a gentle ramp down in speed to eliminate the surges caused by stopping a motor both electrically and hydraulically. Monitor and protect the motor.

The list of available “drive” terminology controllers was discussed: a) Variable Frequency Drive (Vbfd), b) Variable Speed Drive (VSD), c) Adjustable Frequency Drive (AFD), d) Adjustable Speed Drive (ASD), e) Frequency Converter, f) Inverter, g) AC Drive, h) or just plain “Drive”.

Other key points: The application of a pressure boosting system, for a potable water supply to multi-story buildings. The necessary

collection of data for a pump curve selection. Provide 1000 gpm, with the design head of 75 feet. Let's us develop a performance pump curve. We generally can allow plumbing head losses of about only 5% of the total head. Of the 75 feet total head, 20 feet is the variable head (friction + suction pressure variations). City supply of 31 psig is available. Discharge pressure will be 65 psig. Allow for 40 psig delivered to the 5th floor elevation. Sorting thru 5 options, we have selected option 4.

Pump speed 1750 (rpm), pump efficiency at (83.71%), (NPSHr 10.1), max.(24.8 bhp), (89.80 %) max. Diameter, sized for (5” dia. Suction x 4” dia. discharge) pipe size. Hydraulic (pump) efficiency ranges between 75-80% along the control curve. The demands on the system enter flow profiles of 5 duty points, ranges from (300 gpm at 57 feet to 900 gpm at 71 feet) required TDH feet, hours per day (5.0 for the highest to 1.0 for the lowest) a total 15 hours per day operation for the duty points. Having a grand total of operating 3,750 hours per year. Compiled data, operating brake horsepower, 5.7 bhp for 300 gpm flow, to 20.2 bhp for 900 gpm flow. Pump efficiency flow of 300 gpm 75.8%, to flow of 900 gpm 80.3%.

Use of energy, with flow of 300 gpm for 6,322.3 (kwh), flow of 900 gpm for 4274.1(kwh) totals 31,375.8 (kwh), for the year.

Final PUMP option no. 4 is 1,750 rpm, 78.09% efficiency, (27.2 NSPHr), max. power (24.2 bhp), (92.69%) max.diameter, pump size (5in dia. suction x 4in dia. discharge). This unit will have three vertical multi-speed pumps with a Variable Speed Drive Controller (VSD), packaged type on skids complete.

## The Basics

Water horsepower (a.k.a. hydraulic horsepower)

$$P_1 = whp = \frac{Q \times H \times SG}{3960}$$

Q = Flow in gpm

H = Head in feet

Brake horsepower (Pump Shaft)

$$P_2 = bhp = \frac{Q \times H \times SG}{3960 \times \eta_{pump}}$$

SG = Specific Gravity of liquid

$\eta$  = Pump Efficiency (Greek symbol “eta”)

Electric horsepower (Input Power)

$$P_3 = ehp = \frac{bhp}{\eta_{driver}}$$

$\eta_{driver}$  = driver efficiency

$$P_4 [kW] = ehp = \frac{bhp \times 0.746}{\eta_{motor} \times \eta_{drive}}$$

## The Affinity Laws

For variations in speed

$$\text{Flow is proportional to speed} \quad > \quad \frac{GPM_1}{GPM_2} = \frac{RPM_1}{RPM_2} \quad > \quad GPM_2 = GPM_1 \left( \frac{RPM_2}{RPM_1} \right)$$

$$\text{Head is proportional to the square of the speed} \quad > \quad \frac{TDH_1}{TDH_2} = \left( \frac{RPM_1}{RPM_2} \right)^2 \quad > \quad TDH_2 = TDH_1 \left( \frac{RPM_2}{RPM_1} \right)^2$$

$$\text{Horsepower is proportional to the cube of the speed} \quad > \quad \frac{BHP_1}{BHP_2} = \left( \frac{RPM_1}{RPM_2} \right)^3 \quad > \quad BHP_2 = BHP_1 \left( \frac{RPM_2}{RPM_1} \right)^3$$

When TDH<sub>1</sub>, RPM<sub>1</sub>, and TDH<sub>2</sub> are known:

$$RPM_2 = RPM_1 \sqrt{\frac{TDH_2}{TDH_1}}$$

continued on page 6

## ASPE EMC March Meeting

A big THANK YOU to Cindy Zatto, our photographer, for providing photos.



## Ed's Perspective

*continued from page 5*

### Additional important considerations:

1. Maximum design flow (GPM)
2. Inlet pressure (max./min.)
3. Discharge pressure (system pressure)
4. Type of service
  - ▶ Apartment buildings (flow profile)
  - ▶ Office building
  - ▶ Cooling tower make-up etc.
  - ▶ Factories etc.
  - ▶ Chemical plants
  - ▶ Pharmaceuticals plants
  - ▶ Colleges and schools
5. Power supply (VERY IMPORTANT with VFDs)  
3 / 60 / 208 ...3 / 60 / 460 Voltages
6. Environment
  - ▶ Indoor/Outdoor, min./max. Ambient temp.
  - ▶ Installation space (footprint, existing pipes etc.)
7. Backup pumps? (Redundancy)
8. No flow shutdown?

There were other examples of pump curves and performance curves, that were important to this program, however much more than extra space will allow.

Therefore, I can only say that those of you who missed the program, for the next one, all should make an extra effort to attend and you will not feel you are missing something not in the report.

*Edwin Louis Hawley, CPD*

### HS/BUY VAN ASSOCIATES, INC.

Manufacturers' Representatives

56 S. Squirrel

Auburn Hills, MI 48326

Jarrett Armstrong

Bill Allen

Ph 888 472-8982 Fax 248 852-0298

info@hsbuyvan.com

www.hsbuyvan.com

### R.L. DEPPMANN COMPANY

Manufacturers' Representatives

20929 Bridge St.

Southfield, MI 48034

Chris Leider / Paul Prentice, LEED AP

Ph 800 589-8115 Fax 248 354-3763

sales@deppmann.com

www.deppmann.com

**BALFREY & JOHNSTON, INC.**

Manufacturers' Representatives  
P.O.Box 37317  
Oak Park, MI 48237  
George D. Johnston  
Ph 313 864-2800 Fax 313 864-7219  
george@balfrey-johnston.com  
www.balfrey-johnston.com

**BURKE AGENCY, INC.**

Manufacturers' Representatives  
2605-A Oakley Park Road  
Walled Lake, MI 48390  
Brian Burke, Tom Zimmerman, Brett Young  
Ph 248 669-2800 Fax 248 669-3310  
bburke@burkeagency.com  
www.burkeagency.com

**DALE PRENTICE COMPANY**

Manufacturers' Representatives  
26511 Harding Avenue  
Oak Park, MI 48237  
Ph 888 456-4328 or 248 399-5500 Fax 248 399-5559  
Jim Rogers, LEED AP<sup>R</sup>  
jrogers@prenticeco.com  
http://www.prenticeco.com

**DAVE WATSON ASSOCIATES, INC.**

Manufacturers' Representatives  
1325 W. Beecher St.  
Adrian, MI 49221  
Dave Watson, Jr.  
Ph 517 263-8988 Fax 517 263-2328  
dwa@davewatson.biz

**DIVERSIFIED SPEC. SALES, INC./  
HOWLEY AGENCY SALES CO.**

Manufacturers' Representative  
13261 Northend Ave.  
Oak Park, MI 48237-3265  
Michael J. Burdette  
Ph 248 398-2400 Fax 248 547-4905  
www.diversifiedspec.com

**LOCHINVAR**

High Efficiency Water Heaters and Boilers  
45900 Port Street  
Plymouth, MI 48170  
Jason Loverich  
Ph 734 454-4480 Fax 734 454-1790  
jloverich@lochinvar.com  
www.lochinvar.com

**MEEK / BECK & ASSOCIATES, INC.**

Manufacturers' Representatives  
11875 Belden Court  
Livonia, MI 48150  
Ross Beck  
Ph 734 458-2950 Fax 734 458-2953  
meekandbeck@aol.com  
www.meekbeck.com

**MAJOR/LOZUAWAY & ASSOCIATES, INC.**

Manufacturers' Representatives  
1117 W. Grand Blanc Rd.  
Grand Blanc, MI 48439  
Mike Ostrowski  
Wayne Phillpotts  
Ph 810 234-1635 Fax 810 234-8389  
moski@lozuaway.com

**PERFORMANCE ENGINEERING GROUP**

Engineered Water Products  
32955 Industrial Rd.  
Livonia, MI 48150  
Alan Deal  
Ph 734 266-5300 Fax 734 266-5310  
www.performanceengineering.com

**QUALITY WATER & AIR, INC.**

Manufacturers' Representative  
1402 Souter  
Troy, MI 48083  
Dawn Cole  
Ph 248 589-8010 Fax 248 589-8016  
qualitywaterair@cs.com  
www.qualitywaterair.com

**TAGGART-KNIGHT GROUP**

Manufacturers' Representatives  
32985 Hamilton Court, Suite 102  
Farmington Hills, MI 48334  
Gary O. Taggart  
Ph 248 553-4388 Fax 248 553-4653  
info@taggartco.com

**TRO SALES COMPANY**

Manufacturers' Representatives  
3406 West 12 Mile Road  
Berkley, MI 48072  
Thomas R. Osberger  
Ph 248 546-5354 Fax 248 546-3513  
trosalesco@aol.com

# ASPE NEWS

American Society of Plumbing Engineers-Eastern Michigan Chapter

Mary Chapman, Newsletter Editor  
P.O. Box 37317  
Oak Park, MI 48237

## Internet Address

[http://aspe.org/Eastern\\_Michigan](http://aspe.org/Eastern_Michigan)  
Region 2 - Great Lakes  
Eastern Michigan

## Non-Profit Corporation

Local Chapters Not Authorized To Speak For  
The Society

## First Class Mail

### 2009-2010 ASPE-EMC Board and Committee Chairpersons

#### President

John Nussbaum, FASSE IPP  
MCA Detroit  
14801 W. Eight Mile Road  
Detroit, MI 48235  
(313) 341-7661 x 211 Fax: 341-1007  
jnussbaum@mcadetroit.org

#### Vice President Technical

David Rhodes, CRD  
47141 Pincrest  
Utica, MI 48317  
(596) 254-6028 Home  
drhodes1vptech@aol.com

#### Vice President Legislative

Barry Pines, CPD  
C&R Plumbing & Heating, Inc.  
51195 Fischer Park Drive  
Shelby Twp, MI 48316  
(586) 739-8915 Fax: 731-5650  
bpines@cr-plumbing.com

#### Vice President Membership

Rick Johnston  
Dave Watson & Associates  
1325 W. Beecher  
Adrian, MI 49221  
(517) 263-8988 Fax: 263-2328  
rjohnston@davewatson.biz

#### Treasurer

John Snyder, CPD  
31758 Edgeworth Dr.  
Madison Heights, MI 48071  
(248) 588-8741 Fax: 577-0104  
johnsnnyder@wowway.com

#### Administrative Secretary

Paul Bladdick  
LPB Company  
379 Shotwell Court  
White Lake, MI 48386  
(248) 698-9292 Fax: 698-9227  
bladdick@comcast.net

#### Corresponding Secretary

George Johnston II  
Balfrey & Johnston, Inc.  
P.O. Box 37317  
Oak Park, MI 48237  
(313) 864-2800 Fax: 864-7219  
george2@balfrey-johnston.com

#### Director

Jeremy Brown  
NSF International  
789 N. Dixboro Rd.  
Ann Arbor, MI 48105  
(734) 769-5196 Fax: 827-7129  
brown@nsf.org

#### Director

Allen Verriest  
46134 Meadowview  
Shelby Township, MI 48317  
(586) 932-6169 Home  
(586) 295-2005 Cell  
allenverriest@yahoo.com

#### Chapter Affiliate

Cindy Zatto, FASSE  
V. E. Sales Company, Inc.  
25200 Jefferson Ave.  
St. Clair Shores, MI 48081  
(586) 774-7760 Fax: 774-1490  
cindyz@vesalesinc.com

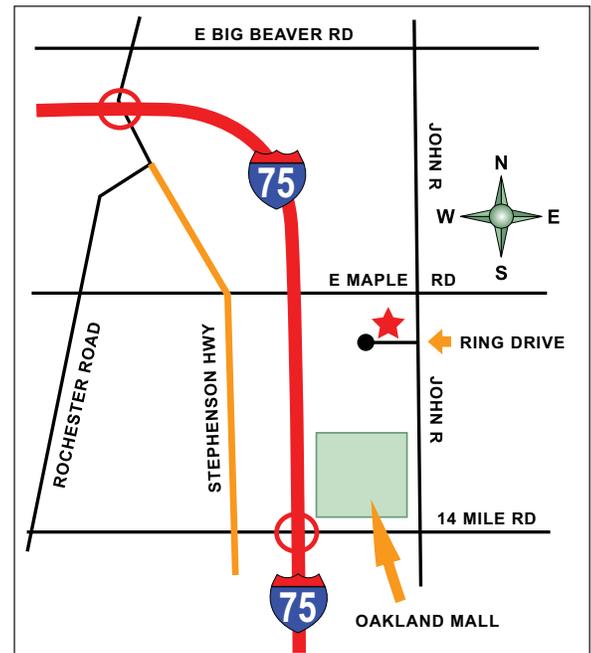
#### Student Liaison/ Lawrence Tech

Ryan Beaudrie  
R. George Design & Consulting  
P.O. Box 47  
Newport, MI 48166  
(734) 322-0225 Fax: 322-3949  
ryanbeaudrie@yahoo.com

#### Newsletter Pub/Web Editor

Mary Chapman  
MCA Detroit  
14801 W. Eight Mile Road  
Detroit, MI 48235  
(313) 341-7661 x 210 Fax: 341-1007  
mchapman@mcadetroit.org

Map to the Plumbing Industry Training Center  
1911 Ring Drive - Troy, MI  
West of and off John R, north of 14 Mile Rd.



ASPE News is published 10 times per year (September through May, plus one summer issue). Yearly advertising rates are \$250.00 per ad for members and \$300.00 for non-members. Insert advertisements are \$250.00 for one ounce and \$100 for each additional ounce. For HELP WANTED ad rates, quarter-page and half-page product ads, please contact Mary Chapman. Checks should be made payable to ASPE E. Mich. Chapter and mailed to the attention of Mary Chapman at 14801 W 8 Mile Rd, Detroit, MI 48235. All newsletter inserts should be mailed to ASPE-EMC Corresponding Secretary George Johnston with a copy sent to Mary Chapman. Circulation 400 - Distributed to: Engineers, Contractors, Inspectors, and other industry professionals in Michigan. For contributing articles contact Mary Chapman, Newsletter Editor at: mchapman@mcadetroit.org.