



Plumbing Design,
ASPE Handbook &
Vendor Classes
2015-2016

Anyone involved in the plumbing industry would benefit from attending these very informative classes. Knowledgeable and industry-wise presenters teach and interact with attendees in a relaxed and friendly atmosphere. Technical sessions take place at one of the premier training centers in southeastern Michigan, the Metropolitan Detroit Plumbing Industry Training Center in Troy, Michigan. Jointly sponsored by the Eastern Michigan Chapter of the American Society of Plumbing Engineers (ASPE) and American Society of Sanitary Engineering - Michigan Chapter (ASSE), the programs are designed to give a well rounded learning experience. Classes are open to anyone interested. Dinner cost is \$20 per person to non ASPE and ASSE members with checks made payable to ASPE-EMC. The Eastern Michigan Chapter of ASPE will be hosting a series of Plumbing Design classes from 4:30 PM to 5:30 PM in addition to our technical program. The Plumbing Design classes will focus on cross connection control and backflow prevention. The instructor(s) for the Plumbing Design Classes will be Mr. Mike Melaragni, CPD and/or Mr. Paul Baker. Tabletop vendors are encouraged to introduce products with the latest technologies. Pre-registration is required. Contact Brianne Hall, ASPE VP Tech, preferably by responding to ASPE EMC's Eventbrite invitation to confirm your attendance by the Friday prior to class day. Visit our web site at <http://eastern-michigan.aspe.org> for a map to the school or view the map on the last page of this publication. Dinner takes place from 5:30 - 6:00 PM. PLEASE NOTE: Topics, times and locations are subject to change, depending on the availability of the presenter or unpredictable circumstances. Check our web site for the most up-to-date information.

EASTERN MICHIGAN PROGRAMS

SEPTEMBER 15, 2015 Fuel Gas Piping System Design

In this presentation we will review terminology, governing codes, various components, distribution and design considerations associated with fuel gas piping systems. We will review how operating pressures and pressure losses affect system design. We will learn how to determine building total load and how to design and size a building fuel gas piping distribution system.

Presenter: William Grayzar, CPD | DiClemente Siegel Design Inc.

- 4:30 PM - 5:30 PM Plumbing Design Class #1: Cross Connection Control Subject Introduction / History / Definitions
- 5:30 PM - 6:00 PM Dinner and Vendor Table Top Discussions
- 6:00 PM - 8:00 PM Technical Session: Fuel Gas Piping System Design

OCTOBER 20, 2015 Grease Interceptor Sizing, Performance and Installation

In this session you will learn about the types of grease interceptors, various sizing methods, codes and standards, maintenance, performance and installation requirements. A review of some case studies will also be provided.

Presenter: Chas Tevis, Divison Manager | Highland Tank Co.

- 4:30 PM - 5:30 PM Plumbing Design Class #2: Cross Connection Control and the Michigan Plumbing Code
- 5:30 PM - 6:00 PM Dinner and Vendor Table Top Discussions
- 6:00 PM - 8:00 PM Technical Session: Grease Interceptor Sizing, Performance and Installation

NOVEMBER 17, 2015 Fire Protection - Specialty Systems

This presentation will discuss the commonly used types of clean agent systems found in the NFPA 2001 standard (examples FM200, Novec 1230, and Inergen), as well as an understanding of the new hybrid fire suppression systems (example Victaulic Vortex). The presentation will endeavor to clarify the similarities and differences between all of these types of systems. It will also discuss the advantages and disadvantages of these systems in comparison to each other and in applications to real world environments.

Presenter: Jeff Hausmann, SET | Engineered Systems Sales

4:30 PM - 5:30 PM Plumbing Design Class #3: Reduced Pressure-Zone Principle Assemblies

5:30 PM - 6:00 PM Dinner and Vendor Table Top Discussions

6:00 PM - 8:00 PM Technical Session: Fire Protection - Specialty Systems

DECEMBER 15, 2015 Fabrication - The Dissection of Your Design

**** THIS IS A LUNCHEON MEETING (There will not be an evening program for December 2015) ****

This session will cover the fabrication process from start to finish, including a tour of Limbach's fabrication facility in Pontiac, MI. Topics covered will include: Design for fabrication, the right time to fabricate, the spooling process, and delivery considerations.

Presenter: Mark Lamberson, CPD, Lead Piping Planner | Limbach Company, Pontiac, MI

11:00 AM - 2:00 PM Fabrication and Shop Tour - Limbach's Shop (Luncheon)

JANUARY 19, 2016 Solving Hydraulic Separation Problems in Hydronic Systems and Hydronic & Domestic Hot Water System Balancing

**** THIS IS A JOINT MEETING with ASPE AND ASHRAE ****

Solving Hydraulic Separation Problems in Hydronic Systems: This session is designed to look at the potential problems caused by pumping conflicts presented to the hydronic system designer. We will examine primary secondary piping arrangements and methods of hydraulically decoupling the system to ensure proper pump performance for the hydronic system. Additionally, we will explore the need for dirt and air separation and how to effectively combine multi-functional components to provide simplified designs that are cost effective.

Presenter #1: Jody Samuel | Caleffi Hydronic Solutions

Hydronic & Domestic Hot Water System Balancing: In this presentation we will examine the need for balancing in hydronic and hot water systems. In addition we will discuss the problems encountered with unbalanced systems. We will explore the various balancing devices available including how they work and what is required to properly set them. Finally we will discuss the process of balancing a system.

Presenter #2: Jody Samuel | Caleffi Hydronic Solutions

4:30 PM - 5:30 PM Plumbing Design Class #4: Non-Testable Devices and Methods

5:30 PM - 6:00 PM Dinner and Vendor Table Top Discussions

6:00 PM - 7:00 PM Technical Session #1: Air, Dirt, Hydraulic Separation

7:00 PM - 8:00 PM Technical Session #2: Hydronic & Domestic Hot Water Balancing

FEBRUARY 16, 2016 Designing Around High Eff. Domestic Water Heating Equip.

The intent of this session is to make sure we use proper designs that maximize equipment efficiency without compromising the ability for the plant to provide the needed hot water. We will take a holistic look at the system including how the heaters are controlled and how that affects efficiency, what factors go into choosing one type of equipment over another and how the owners' costs are ultimately effected. This course will also discuss Pro's and Con's of various equipment designs (Tank-Type Systems, Heater/Tank Systems, Tankless Systems) and the will Compare Cost of Ownership of each design.

Presenter: Josh Looper, PE | R.L. Deppmann Company, Southfield, MI

4:30 PM - 5:30 PM Plumbing Design Class #5: Vacuum Breakers both Atmospheric and Pressure

5:30 PM - 6:00 PM Dinner and Vendor Table Top Discussions

6:00 PM - 8:00 PM Technical Session: High Efficiency Domestic Water Heating Design

MARCH 15, 2016

LEED 4.0 Water Efficiency for Existing Buildings

**** NASPE CAR RACES TAKING PLACE on this date IN CELEBRATION OF WORLD PLUMBING DAY ****

What are the changes with the new LEED 4.0 guidelines? This session will identify the intent, requirements and paths to compliance with the new guidelines. Learn to recognize the various ways to reduce water consumption in all areas of the facility. The implementation of metering strategies and requirements to foster better water resource management will be reviewed. These topics will be discussed along with the specific metrics and synergies between multiple credits that must be reached for mechanical systems, plumbing and storm water systems in order to achieve or maintain a LEED certified facility.

Presenter: Alan Deal, P.E. | Performance Engineering, Livonia, MI

4:30 PM - 5:30 PM Plumbing Design Class #6: Double Check Valve Assemblies

5:30 PM - 6:00 PM Dinner and Vendor Table Top Discussions

6:00 PM - 8:00 PM Technical Session: LEED 4.0 Water Efficiency for Existing Buildings

APRIL 19, 2016

Medical Gas Code Changes

This session will identify recent updates to the NFPA Codes as they directly relate to and impact the design and installation of medical gas piping systems.

Presenter: Mark Allen | Beacon Medaes

4:30 PM - 5:30 PM Plumbing Design Class #7: Reduced Pressure-Zone Principle Assemblies

5:30 PM - 6:00 PM Dinner and Vendor Table Top Discussions

6:00 PM - 8:00 PM Technical Session: Medical Gas Code Changes

MAY 17, 2016

Storm Water Drainage System Design

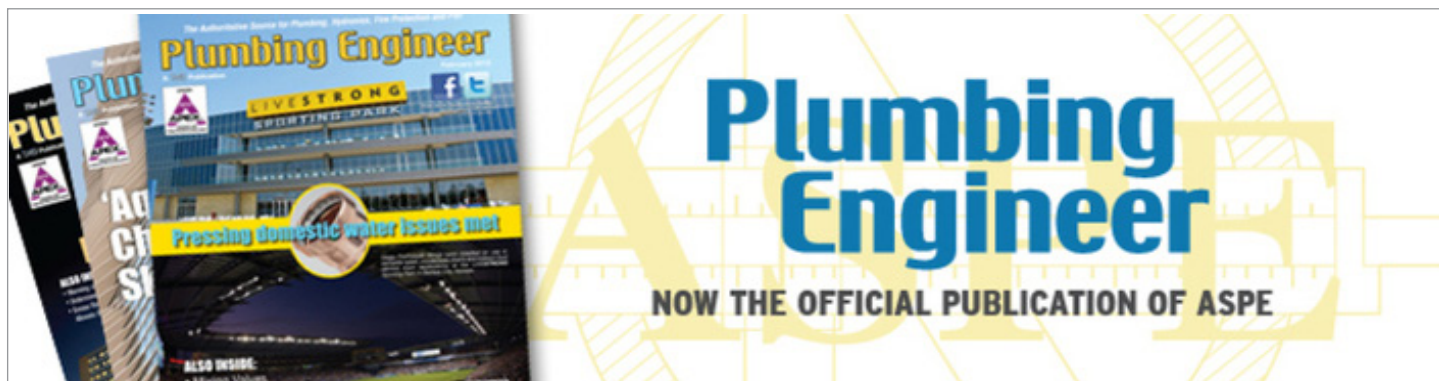
In this presentation we will review storm water drainage system design considerations and applicable code requirements. We will review the various design options for primary and secondary systems. We will learn how to properly design and size both primary and secondary gravity storm water drainage systems.

Presenter: Ron George, CPD, President | Plumb-Tech Design & Consulting Services, LLC

4:30 PM - 5:30 PM Plumbing Design Class #8: TBD

5:30 PM - 6:00 PM Dinner and Vendor Table Top Discussions

6:00 PM - 8:00 PM Technical Session: Storm Water Drainage System Design



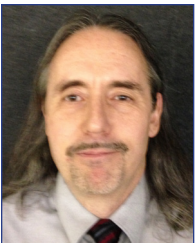
SPEAKERS



William Grayzar, CPD - Mr. Grayzar currently serves as president for the Eastern Michigan Chapter of ASPE and has over 25 years of experience in the mechanical design field. Bill continues to enhance his system engineering skills through additional vocational field training. He is excellent at designing HVAC renovations for older buildings for religious, educational, municipal, and automotive clients, as well as others. His goal for renovations is to design energy cost saving systems that will enhance the system performance of the entire facility. Bill has an excellent working knowledge of Michigan's current building codes and regulations. Bill obtained an Associate's Degree in Architectural Technology from Delta College University Center, Michigan in 1984.



Chas Tevis - Member and actively involved with the American Society of Plumbing Engineers (ASPE), Water Environmental and Technology (WEFTEC) and Plumbing and Drainage Institute (PDI). Participated in Uniform Plumbing Code Task Group for Fats, Oils, and Grease. Participated in 100 mg/l Task Group for Plumbing and Drainage Institute. Participated in grease interceptor code development for the Canadian Standard Association (CSA B481). Assisted in the development and patent of a continuous level probe designed to measure fats, oils, and grease in grease interceptors. Routine interface with pretreatment coordinators, inspectors, engineers, and facilities on grease interceptor design, sizing, performance, maintenance and compliance issues.



Jeff Hausmann - Jeff has been involved the field of fire protection for 33 years - three years in design and tech services for Safety Concepts in Lafayette, Louisiana and thirty years in engineered systems sales and estimating for Fire Equipment Company Inc in Detroit, Michigan. He is originally from a small town in Ohio. Jeff's primary area of expertise is in special hazard detection and suppression systems. Additionally, Jeff has been extensively involved with specialized types of detection such as air sampling (very early warning) smoke and particle detection, flame detection, spark detection, linear heat detection, gas and liquid leak detection, refrigerant monitoring, etc.

Jeff is NICET certified at Level IV (the highest level) for both Special Hazards Fire Suppression Systems and Fire Alarm Systems.



Mark Lamberson, CPD - Mark completed the apprenticeship program through the Plumber's Industry Training Center, and acquired certifications for Medical Gas installation, Backflow Prevention Testing, and Welding. He has been involved in large scale plumbing projects in the roles of foreman, project manager and estimator. He has been involved with many design assist/design build projects and received his CPD certification in 2013. Mark is employed by The Limbach Company of Pontiac, MI as Lead Piping Planner. He also has recently been reelected to ASPE Eastern Michigan Chapter's V.P. Education position.



Jody Samuel - Jody graduated from the Maine Maritime Academy in 1983 with a Marine Engineering Degree and earned a U.S. Coast Guard license. After graduation he accepted a commission with the U.S. Navy and served as a nuclear trained officer on submarines. Jody's teaching career began at the Naval Education and Training Command in Groton, Conn.

Upon completing his service commitment, Jody turned his attention to the HVAC industry. He's invested over 20 years of experience in product management, technical support and training for boiler and tank manufacturers such as Heatmaker, AMTROL and most recently Viessmann. During this time Jody refined his industry knowledge, experience and his passion for teaching. His presentation style will keep you engaged and challenged as he discusses best methods to approach hydronic system design.

SPEAKERS *continued*



Josh Looper, P.E. - Josh manages the Engineering and Distribution Sales Teams at the R.L. Deppmann Company. He has been with the company since 1997 and in that time has held positions in estimating, engineering, sales, and leadership. Josh graduated from Case Western Reserve University in Cleveland and has earned his PE stamp.

Josh is a member of the Cleveland Chapter of ASHRAE and an active participant in a wide variety of industry associations. When not at work, Josh enjoys spending time with his wife and four daughters.



Alan Deal, P.E. - Alan is president of Performance Engineering Group, Inc. Performance Engineering Group has been actively involved in designing and marketing domestic hot water and hydronic heating systems since 1964. Performance Engineering Group has been involved with hundreds of energy conservation projects across a broad spectrum of market segments, including renewable energy and waste energy solutions. They specialize in providing complete, engineered packages to the installation contractor including materials and design and are an active trade ally with all commercial and multi-family Energy Optimization providers in the State of Michigan. Alan has received many industry awards including multiple ASHRAE technology awards for energy conservation activities, ASPE-Eastern Michigan Chapter Engineer of the year, and a Radiant Panel Association Hall of Fame nominee.



Mark Allen - Mr. Allen has been involved in medical gas industry since 1978. He started out of college with one of the earliest certification firms back when “certification” of medical gas systems was just gaining credence. After seven years, he transitioned to a major manufacturer in 1985 and has held various technical and marketing roles. He now proudly works for BeaconMedaes, the innovation leader in the medical gas products industry. He has been involved in virtually all aspects of medical gas work, including regulatory, testing and certification, marketing, and product development over the last 23 years. He is an active member of the National Fire Protection Association Technical Committee on Medical Gas and Vacuum Systems and has been involved with that Committee since the 1987 edition. He is also an active member of the Canadian Standards Association Technical Committee on Medical Gas and Vacuum Systems. He has recently been honored as a special expert by the MGPFO Verifier’s organization.



Ron George, CPD - Mr. George is the president of Plumb-Tech Design & Consulting Services LLC and oversees all operations and oversees all design and consulting projects. Mr. George is very familiar with the plumbing and mechanical codes and standards and sits on numerous plumbing & mechanical codes and standards committees. He has over 32 years of experience designing plumbing and mechanical systems for several major architectural, engineering, and design & construction firms. He has served as an expert witness in many cases and performs forensic investigations all around the United States. He has designed plumbing, mechanical, and fire protection systems for building types including airports, stadiums, industrial manufacturing facilities, office buildings, commercial and retail buildings, hospitals, laboratories, prisons, jails, hotels, apartment buildings, military projects, high rise and educational facilities.

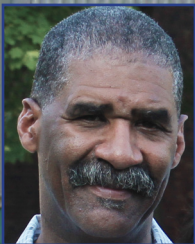
www.Plumb-Techllc.com and www.Legionellaprevention.org and www.scaldprevention.org.

PLUMBING DESIGN COURSE SERIES

LOCATION

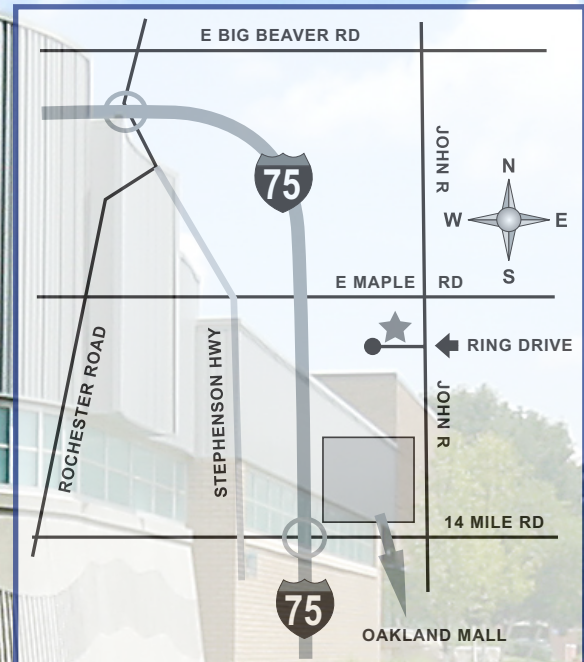


DESIGN CLASS INSTRUCTOR
MICHAEL MELARAGNI , CPD
Director, Metropolitan Plumbing
Industry Training Center



DESIGN CLASS INSTRUCTOR
PAUL BAKER
Instructor, Metropolitan Plumbing
Industry Training Center

ALL Programs take place at the Plumbing Industry Training Center in Troy, MI, unless otherwise stated in the program brochure.



1911 Ring Drive, Troy, MI 48083

VENDOR CLASSES / TABLETOPS

Those manufacturers' representatives interested in holding a vendor class in conjunction with the design class are welcomed to do so at no cost. Contact Bill Grayzar at 248.569.1430 ext. 333 or e-mail to bill@dsonline.com. The time slot available is from 4:30 PM to 5:30 PM. A room would be provided for your use. We request a speaker photo, brief bio and class description be provided for promotional use by the Chapter.

If you are interested in having one or more table top display(s) at one of our meetings, please contact Brianne Hall by e-mail at bnhall@ftch.com or phone 248.324.4780.

ASPE MEMBERSHIP

The Value and Benefits of Membership

- ASPE Plumbing Engineering Design Handbook
- Monthly subscription to Plumbing Engineer Magazine
- ASPE Report (Plumbing Engineer Magazine)
- Biweekly ASPE Pipeline e-newsletter
- Members-only ASPEnet access (includes access to ASPE PEDH chapters)
- Publication and education program discounts
- ASPE Biennial Convention and Engineered Plumbing Exposition (even years)
- ASPE Biennial Technical Symposium (odd years)
- Technical seminars and workshops
- Access to earn continuing education units (CEUs)
- Technical books and manuals (specific to the profession of plumbing engineering)
- Professional certification / recertification
- Continuing education opportunities in Plumbing Engineer Magazine
- Alfred Steele Scholarship Program
- Local chapter affiliation
- Monthly chapter meetings and technical seminar opportunities
- Networking opportunities with plumbing engineers worldwide
- Leadership opportunities (national and chapter boards of directors and committees)

National ASPE Website: www.aspe.org

Local Michigan Chapter: http://aspe.org/Eastern_Michigan

Please forward this to others of interest.

2015-2016 ASPE-EMC Board and Committee Chairpersons

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Map to the Plumbing Industry Training Center 1911 Ring Drive - Troy, MI

West of and off John R, north of 14 Mile Rd.

