ASPE Eastern Michigan

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. Classes 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 American Society of Sanitary Engineering - Michigan Chapter (ASSE) and the Eastern Michigan Chapter of the American Society of Plumbing Engineers (ASPE), the programs are designed to give a well rounded learning experience. Classes are open to anyone interested. Dinner cost is $15 per person *(at the door)* to non ASPE and ASSE members. Checks made payable to ASPE-EMC are accepted. ASPE Plumbing Design Handbook reviews are being conducted on a monthly basis by Joseph Hernandez, CIPE/CPD, for basic design classes. Vendors are also conducting classes to introduce the latest technologies available. Registration is required. Contact ASPE VP Technical David Rhodes by e-mail at drhodes@cr-plumbing.com or phone (586) 739-8915 x 59 to confirm your attendance by the Friday prior to class day. Visit our web site at www.aspe.org/Eastern_Michigan *(URL is case sensitive)* for easy registration and a map to the school. Dinner takes place from 5:30 - 6:00 pm. PLEASE NOTE: Topics, times and places 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.

Plumbing Industry Training Center
1911 Ring Drive, Troy, MI 48083

PROGRAMS

September 15, 2009

Handbook Basic: **Sanitary Systems Design & Engineering** — 3:30 - 5:30 PM
Vendor Class: **Aquatherm Potable Water Piping for Any and All Applications** with Jim Brock — 3:30 - 5:30 PM
Design Class: **Why and How - Mechanical Engineers and Contractors need to be LEED Accredited** — 6:00 - 8:30 PM
Presenter: Michael Dolkowski

Discuss the role of the specifying engineer and the need to be LEED accredited. Why become a Certified Green Contractor? What is the carbon footprint and how to calculate it. Federal and State legislation on GHG, CO2 emission; alternative energy and energy conservation measures; credits and tax incentives for alternative energy and energy conservation measure equipment. What systems qualify solar, wind, geothermal, and hybrid systems. Solar, geothermal and wind basics for the environment. EPP (Environmentally Preferred Purchasing); why this program is important to the Certified Green Contractor, how to register for the EPP program. Calculating energy consumption and savings; setting up a Green Shop; new Green technologies.

October 20, 2009

Handbook Basic: **Domestic Cold Water Design & Engineering** — 3:30 - 5:30 PM
Vendor Class: **Bonding of CSST (Corrugated Stainless Steel) Gas Piping** with Steve Cook — 3:30 - 5:30 PM
Design Class: **Michigan Regulations for Geothermal Closed Loop Systems** — 6:00 - 8:30 PM
Presenter: Mike Gaber, Chief of the Well Construction Unit, Michigan DEQ

Geothermal Heat Pumps – Regulatory Perspectives provides an overview of heat pump technology and explains environmental concerns and regulatory implications. The presentation covers how the Michigan Department of Environmental Quality is working closely with industry to develop standards for construction, decommissioning and reporting of geothermal closed-loops. *Water Well Construction in Michigan* looks at well drilling trends and highlights some of the unique aspects of groundwater development in Michigan.

November 10, 2009 *NOTE: Second Tuesday of the Month*

Handbook Basic: **Domestic Hot Water Design & Engineering** — 3:30 - 5:30 PM
Vendor Class: **Mueller Stream Tech Adhesive Joining Systems** with Collin Schafer — 3:30 - 5:30 PM
Design Class: **Capturing The Real Green In Cost Effective Hot Water Renovation Projects** — 6:00 - 8:30 PM
Presenter: Alan Deal, PE

When designing a replacement domestic hot water or hydronic heating system, the designer is faced with making many decisions and assumptions. This presentation will focus on the wet side of the HVAC industry, and in particular renovation of existing heating systems for space conditioning and other building loads. A review of the tools and methods used to select equipment and some new ideas on revealing the real needs of the building. Several case studies will be presented with comparisons of technology will be included in the presentation. A portion of the program will be covering the applicable point areas in a LEED certified project, and ideas for innovation in design potential.

** Certified in Plumbing Design through the American Society of Plumbing Engineers. Visit www.aspe.org for complete details.*

December 15, 2009

Handbook Basic: **Storm Water Systems** — 3:30 - 5:30 PM
Vendor Class: **Introduction to Water Saving Products** with George Johnston — 3:30 - 5:30 PM
Design Class: **LEED: Applications For and On Plumbing in Retrofit of Existing Buildings** — 6:00 - 8:30 PM
Presenter: Ron George, CPD

Overview of the LEEDs Program (Leadership in Energy and Environmental Design): LEED Points System for Plumbing; Survey of existing building for potential savings (Water, Energy); Pitfalls (electronic fixtures, oversized pipe, diversion of waste for greywater reuse, scalding concerns with older style two handled shower valves and low flow shower heads etc.); Saving water and energy wisely; Benefits from Energy & Water savings; Sample water and energy savings for two existing buildings.

January 19, 2010

Handbook Basic: **Basics on Pumps** — 3:30 - 5:30 PM
Vendor Class: **TBD** — 3:30 - 5:30 PM
Design Class: **Pressurized Commercial Solar Thermal System Design** — 6:00 - 8:30 PM
Presenter: Jim Rogers, LEED AP

SRCC ratings and what they mean; Energy Savings Goals; Designing with OG100 Solar Collectors: Flat Panel and Vacuum Tube; System modeling with software; Solar Thermal System Components; Piping design -stand alone systems; Piping Design - combined Systems; System Control Strategies

February 16, 2010

Handbook Basic: **CPD Preparation Class** — 3:30 - 5:30 PM
Vendor Class: **Residential Fire Protection** with Jim Prisby — 3:30 - 5:30 PM
Design Class: **Water Safety = Life Safety: Mechanical Engineer/ Contractor/ Hospital Engineer** — 6:00 - 8:30 PM
Presenter: Stacey Wesselink, National Director, Pathogen Div., LiquiTech Environmental Solutions

This presentation offers an in-depth examination of the undeniable impact that the domestic water system has on safety, clinical outcomes and economics. We will explore the climate of regulatory and health care reimbursement pressures that are shaping new "best practices" for Mechanical Engineers to minimize risk related to domestic water system contamination. Discussion will cover what the DOD, VHA, ASHRAE, and other proactive organizations are doing to increase the safety of domestic water systems; Calculate the potential economic impact of risk avoidance, a ten-year outlook for one hospital; Address common misconceptions and how to avoid dangerous plumbing design pitfalls; Identify strategies to sanitize domestic water systems and the impact of different methods; on facility resources; How to navigate the realm of legal responsibility and reduce liability exposure.

March 16, 2010

Handbook Basic: **CPD Preparation Class** — 3:30 - 5:30 PM
Vendor Class: **TBD** — 3:30 - 5:30 PM
Design Class: **Pumping System Optimization & Applications: Variable Speed Pumping** — 6:00 - 8:30 PM
Presenter: Reece Robinson, PE

Reece Robinson will discuss some basic concepts of variable speed pumping (not just show those boring old affinity law equations that you see in magazine articles). The following concepts will be discussed (the speaker reserves the right to add or subtract from this list without notice): Proper use of affinity laws; Control Curve vs. System Curve; Control Parameters; Will energy savings actually be achieved/how to determine this; Motor Requirements (What is "Inverter Duty"). Typical Plumbing (and HVAC on request) examples will be used to illustrate the above.

April 20, 2010

Handbook Basic: **Natural Gas Systems Design & Engineering** — 3:30 - 5:30 PM
Vendor Class: **TBD** — 3:30 - 5:30 PM
Program: **Rain Water Harvesting: Where and When is it Applicable and Cost Effective?** — 6:30 - 8:30 PM
Presenter: Ted Kenny

As our demand on municipal water supplies becomes strained with our increase in population, relying on reclaimed rainwater will become an essential part of our future. Our discussion will center around a simple 4 step methodology used to create a simple, sustainable and healthy rainwater harvesting system that can be used in residential, commercial, and industrial settings. We will also discuss the benefits of using rainwater and how it can help earn the project LEED points. A question and answer period will follow.

May 18, 2010

Handbook Basic: **Plumbing & Mechanical Estimating** — 3:30 - 5:30 PM
Vendor Class: **Charlotte Pipe** with Paul Riedinger — 3:30 - 5:30 PM
Design Class: **Chemical Waste Systems** — 6:00 - 8:30 PM
Presenter: Christopher G. Ziu, PE

Overview of neutralization methods; Sizing of neutralization tanks; Neutralization monitoring methods; Overview of piping materials and materials used in acid; Waste systems, including ASTM specifications; Review of material properties; Overview of joining systems; Requirements in fire rated areas (e.g. Return Air Plenums); Secondary containment and leak detection of tanks and piping

SPEAKERS

Mike Dolkowski has over 33 years experience in the environmental/sustainability/energy conservation arena. In 1995 he started his first environmental company and is the current CEO of Environmental Recycling in Bowling Green, Ohio. They specialize in the recycling of fluorescent lights, batteries, transformers, computers, and electronics. In 1998, Mike opened his second business, Environmental Asset Recovery in Wauseon, OH, primarily recycling difficult metals and plastics. In 1999, he purchased his third business, Environmental Recycling Group based in Livonia, MI, specializing in hazardous waste cleanup; property assessments phase 1 and phase 11, and Brownfield property. With requests from his clients for carbon credits and energy audits, he created Carbon Credit Environmental Services (CCES) in October 2007, based in Detroit, MI. CCES provides energy/GHG audits and Life Cycle Analysis of products to companies, while assisting with alternative energy options saving companies money and producing a ROI. Mike has patented an input/output Life Cycle Analysis for GHG, CO2 certification that specializes in LCA (Life Cycle Assessments), GHG Auditing, Carbon Footprint Auditing, Wastewater Treatment, Energy Optimization, Carbon Offsetting, Kyoto Protocol Management, Renewable Energy Design.

Mike Gaber is Chief of the Well Construction Unit, Michigan Department of Environmental Quality, Lansing. Among Mr. Gaber's duties are implementing the Michigan Water Well Construction and Pump Installation Code (with assistance from 45 county and district health departments), and managing the water well drilling contractor registration program. Mr. Gaber has been employed with the State of Michigan's drinking water program for nearly 30 years and is instrumental in improving practices in the water well industry for the protection of public health. His educational background includes a biology undergraduate degree from Northeastern Illinois University, Chicago, and a master's degree from the School of Public Health, University of Michigan, Ann Arbor.

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. Performance Engineering Group specializes in providing complete, engineered packages to the installation contractor. Alan is very active in local professional associations including, American Society of Plumbing Engineers - Eastern Michigan Chapter, the Detroit chapter of the American Society of Heating Refrigeration and Air Conditioning Engineers (past president) and the Eastern Michigan Radiant Panel Association (past president).

Ron George is the president of Ron George Design & Consulting. Ron is very familiar with the Plumbing and Mechanical codes and standards and sits on numerous plumbing & mechanical codes and standards committees. He has 30 years of experience designing Plumbing & Mechanical Systems for several major architectural/engineering and design/construct firms. He has served as an expert witness in many cases and performs forensic investigation all around the United States. He has designed plumbing & mechanical systems for all building types including airports, stadiums, industrial manufacturing facilities, office buildings, commercial and retail buildings, hospitals, laboratories, prisons, jails, hotels, apartment buildings, military projects, and educational facilities.

Jim Rogers, LEED AP® is currently a sales consultant for the Prentice Company of Oak Park Michigan representing Viessmann and Raychem commercial products. Graduate of Macomb College Climate Control Technology Program and the Baker College Business Leadership degree program. Jim's experience during the past twenty-five years includes commercial boiler service, hydronic system design, hydronic snow melting systems, renewable energy systems, hot water temperature maintenance systems, electric radiant, heat tracing, electric radiant, electric snow melt, commercial marketing systems and equipment system design. He currently resides in Rockford (Grand Rapids), Michigan and is a member of the Great Lakes Renewable Energy Association, West Michigan Chapter USGBC, ASPE and current President of the West Michigan Chapter of ASHRAE.

After losing two family members to hospital-acquired illnesses, Stacey Wesselink joined LiquiTech Environmental in 2008 to foster the growing culture of patient safety initiatives in hospitals. As National Director of the firm's Pathogen Division, Stacey works closely with hospitals, architectural and engineering firms to develop best-practices that reduce life safety risks associated with waterborne pathogens.

SPEAKERS *continued*

Reece Robinson is the Applications Engineering Supervisor for packaged pump systems at Grundfos Pumps Corporation, a pump manufacturer with its North American headquarters in Olathe, KS. He has been with Grundfos for 11 years and provides training, technical support and marketing support for their variable speed packaged pumping systems (BoosterpaQ®). Prior to Grundfos, he worked for a consulting engineering firm, providing energy analysis and HVAC system design. Mr. Robinson received a B.S. degree (Mechanical Engineering) from California State University – Fresno.

Ted Kenny is a Certified Rainwater Catchment Systems Accredited Professional. He has been with Jay R. Smith Manufacturing Company for over 18 years and is a Senior Sales Engineer. Ted graduated from the University of Alabama after moving south from New Jersey. He is a charter member and officer of the Alabama ASPE Chapter and is currently serving as the Region 3 Affiliate Liaison.

Christopher G. Ziu, PE, Vice President of Orion Enterprises has been involved in the plastic piping business for more than twenty seven years with experience in polypropylene, PVDF, PVC, CPVC, Polyethyene and PEX piping systems in a wide variety of applications. He has extensive experience in the specialized field of acid waste and acid neutralization, having worked for George Fisher Sloane in the early 1980s and with Orion Fittings since 1998. Another area of expertise is in the field of dual containment piping, where he has developed many of the industries' established thermoplastic systems and practices for designing systems. He is the author of McGraw-Hill's 900 page "Handbook of Double Containment Piping Systems", published in 1995 and has authored numerous other articles and chapters on a variety of plastic piping topics. He is a voting member of the ASTM F17 and ASME B31.3 Committees. His educational background includes a bachelors degree in Chemical Engineering and a Masters Degree in Business Administration, both from the University of Connecticut.

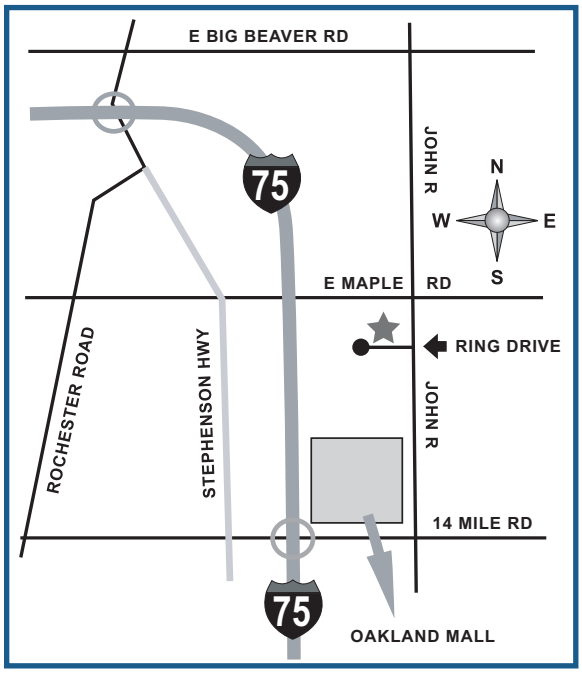
INSTRUCTORS

Basic ASPE Handbook Instructor

Joseph Hernandez received an Associate in Science of Architecture from Henry Ford Community College in 1977 and Bachelor of Mechanical Engineering from Wayne State University in 1988. He has worked for Harley, Ellis, Piece and Yee, Albert Kahn Associates, Giffels and at SSOE Inc. for 13 years. At these A/E firms he held the position of Project Engineer and at SSOE Inc. he was a Senior Associate and the Group Leader for the Retail Division Mechanical Engineering Department. He is presently employed by Integrated Design Solutions and started in the Architectural industry in 1971 as an architectural draftsman while in college.

LOCATION

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