

The North Jersey Section AIChE

presents

The 2014 Fall Lecture Series:

An Introduction to Thermoplastic Piping System Design

Tuesday - October 7, 2014


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Tuesday – October 14, 2014

Registration & Networking – 6:00 PM to 6:30 PM

Dinner - 6:30 to 7:30 PM


Lectures - 7:30 PM – 9:00 PM



**PDHs will be
provided to
attendees**

Meetings will be held at:

The Essex House
525 Northfield Ave
West Orange, NJ 07052
Phone 973-731-2222
(Directions are attached)



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provided to
attendees**

This event sponsored by:

EI Associates

8 Ridgedale Ave
Cedar Knolls, NJ 07927
Phone: 973.775.7777

<http://www.eiassociates.com/>

CM Engineers, LLC

385 Route 24, Suite 3-O
Chester, NJ, 07930
Phone: 908-879-1801

<http://www.cmengineers.com/>

Metal-based piping systems have been in use for decades. Engineers of all stripes have been exposed in some part to projects involving the design of a piping system, whether it is to transfer chemicals from tank to tank, or to transfer potable water from reservoir to tap. Though ubiquitous, metal-based piping systems have limitations that can be addressed with alternate materials of construction, such as thermoplastics. However, when engineering thermoplastic piping systems, one must have not only a working knowledge of piping design, but also an awareness of the unique properties offered by thermoplastics, namely:

- Pressure ratings (including temperature affects)
- Water hammer tolerability
- Friction loss characteristics, and
- Dimensional and weight data

This seminar series will provide background information that will familiarize the attendee with these properties and enable more effective thermoplastic piping system designs.

Session 1 of this seminar series will introduce the attendees to the uses of thermoplastic piping systems, including their unique properties and general design considerations.

Session 2 of this seminar series will introduce attendees to the usefulness of double-walled thermoplastic piping systems for complying with U.S. EPA requirements for underground piping systems, and/or piping systems conveying hazardous wastes or mixtures thereof, (as listed or identified in Subtitle C of the Solid Waste Disposal Act).

Session 1: **October 7, 2014**

Designing Piping Systems Using Thermoplastic Materials - Patrick Fedor, IPEX USA, LLC

This session will provide an introduction to thermoplastic piping materials. This seminar will go over material properties, chemical compatibility, pressure capabilities, and burning characteristics. This seminar will also discuss best practices for design and installation.

- Physical and chemical properties of thermoplastic materials
- Design Considerations - including thermal expansion and contraction, and support spacing, and how to compensate.
- Installation considerations – including, Joining methods, best practice, and do's and don'ts
- Applications
- Applicable codes and standards

Session 2: **October 14, 2014**

Double Containment Piping Systems Design Considerations - Darin Johnson, IPEX USA, LLC

This seminar will go over design guidelines and best practices for double containment piping systems. Topics covered include applications, material selection, system design, and leak detection methods.

- Understanding the EPA regulations behind double containment piping
- Understanding the purpose of double containment piping systems
- Understanding the system design requirement differences for the carrier and containment piping
- Understanding the different leak detection options
- Applications (Traditional and non-traditional)

Instructor Biographies

Patrick Fedor is the Applications Engineering Manager at IPEX. Patrick's primary focus, within IPEX, is providing technical support for the design and installation of plumbing and process piping systems. Patrick received his bachelor's degree in Building Services Engineering from Trinity College Dublin in 1996. Patrick is a licensed professional Engineer in Ontario and Alberta. Since joining IPEX in 2002 he has been involved in the design and support thermoplastic piping systems through the US. His areas of expertise include: Building Services, Process Piping, Thermoplastics, and Fluid Mechanics. Before Joining IPEX, Patrick spent six years working as an M&E engineer UK



and Canada. Patrick has over 12 years of experience in thermoplastic piping system design, installation, and applications.

Darin Johnson is an Applications Engineer at IPEX. Darin's primary focus, within IPEX, is providing technical support for the design and installation of plumbing and process piping systems. Darin received his bachelor's degree in Biochemical Engineering from Western University in 2007. Darin is a licensed professional engineer in Ontario. Since joining IPEX, Darin has provided technical expertise for piping systems in plumbing, municipal, and industrial sectors. Darin has over 6 years of experience in thermoplastic piping system design, installation, and applications.

REGISTRATION FEES:

Both Sessions:

Employed:

Payment in advance - \$50.00

Payment at the door - \$60.00

Retired, Unemployed: - \$30.00

Students (with current ID): - FREE

Single Session:

Employed:

Payment in advance - \$ 30.00

Payment at the door - \$ 35.00

Retired, Unemployed: - \$ 15.00

Students (with current ID): - \$ FREE

Registration fee includes sit-down dinner

Make Checks Payable To:

North Jersey Section AIChE

Please Mail Registrations* and Checks To:

Peter Sibilski, P.E.
Pharmetic Manufacturing Co., LLC
650 Jernee Mill Road
Sayreville, NJ 08872
Tel: 732-254-1901 Ext 140
Fax: 732-254-4423
e-mail: psibilski@mail.alzointernational.com



* In order to allow us to be properly prepared we request that anyone who is attending under a Corporate or University sponsorship send in a completed registration form. Simply note on the form the sponsor's name.

The Fall Lecture Series is presented annually by: North Jersey Section, American Institute of Chemical Engineers.

CORPORATE / UNIVERSITY SPONSORSHIP

Full corporate or university sponsorship allows the sponsoring company or university to send an unlimited number of employees, faculty members, and/or students to the sponsored session(s) of the Fall Lecture Series. To become a corporate or university sponsor, please contact:

Peter Sibilski 732-254-1901 Ext 140
Psibilski@mail.ALZOinternational.com

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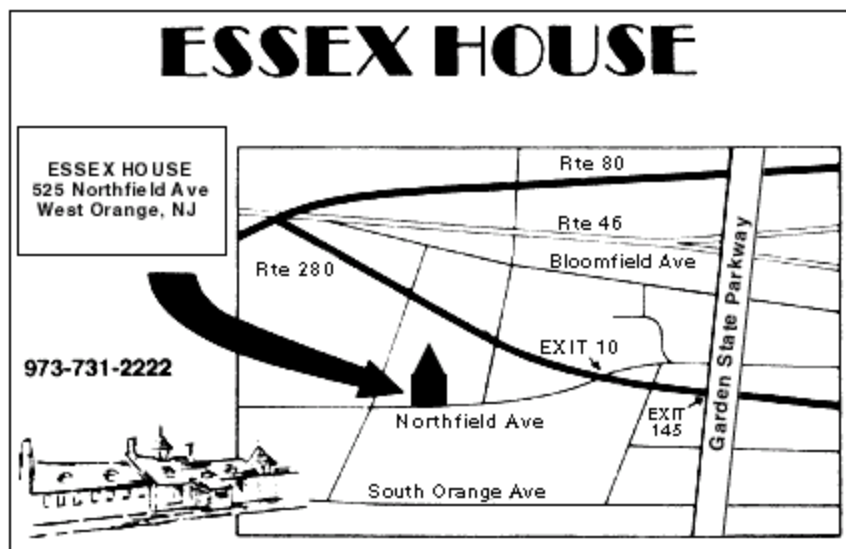
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Please indicate what session(s) you plan to attend:

1 _____ 2 _____ Both sessions _____

✿ Directions ✿



1920's ESSEX HOUSE

A unique restaurant nestled between first and second mountain in beautiful West Orange, New Jersey. Authentic decor and an unhurried atmosphere promotes comfortable feelings; the service and cuisine are all that could be desired.

Easy Directions to the 1920's Essex House

FROM: Holland Tunnel follow Rts 1 and 9 approx 2 miles. Follow the signs to Harrison, Kearny. In Harrison take Rt 280 West to Exit 10. Turn left on Northfield to Essex House (525 Northfield Ave.).

FROM: Lincoln Tunnel and George Washington Bridge take NJ Turnpike south to Exit 15W. Get on Rt 280 West and proceed as above.

FROM: Morristown take Rt 280 East to Exit 7 (Pleasant Valley Way, West Orange), left to Northfield, then left again to Essex House.

FROM: South Jersey take NJ Turnpike North to Exit 15W or Garden State Parkway to Exit 145, then Rt 280 West as above.