ASAHI/AMERICA®
Your Experts in Plastics™

ACCREDITED PRESENTATIONS FROM ASAHI/AMERICA

ASPE
American Society of Plumbing Engineers™

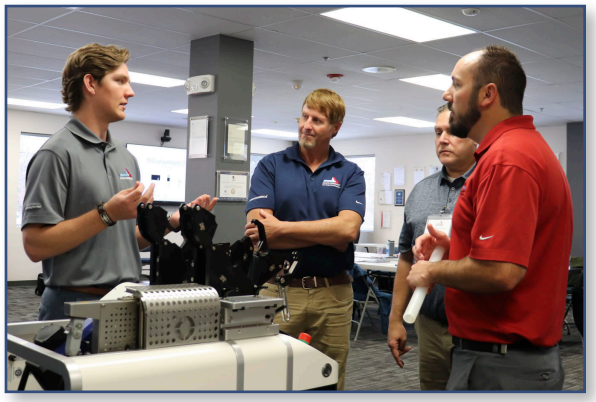
ASPE certified presentations & lunch and learn offerings

ASAHI-AMERICA.COM | 800-343-3618 | ASAHI@ASAHI-AMERICA.COM

Presentation Offerings

ASPE CERTIFIED PRESENTATIONS

Asahi/America is pleased to offer continuing education units (CEU) or professional development hours (PDH) through an accredited program run by the American Society of Plumbing Engineers (ASPE). By completing an Asahi/America presentation from the list below, course participants have the opportunity to earn 0.10 - 0.15 CEU or 1.00 - 1.50 PDH presented by Asahi/America's business development team.



To schedule a presentation at your office or by webinar, simply contact us using the form via the QR code on the next page.

- FREE to anyone!
- Earn CEU/PDH credits
- Receive an electronic completion certificate
- Hosted in your office or online
- Presentations range from 60 to 90 minutes

ASAHI/AMERICA'S BUSINESS DEVELOPMENT TEAM

The business development (BDM) team at Asahi/America is comprised of a skilled group of professionals with varying backgrounds and industry expertise trained to educate the customer and end user on Asahi/America products, services, industry trends, and fluid handling innovations. Asahi/America's BDM team is a market-focused team, each responsible for different market verticals, and they serve as a driving force behind the company's growth strategy, leveraging their expertise, industry knowledge, and customer-centric approach to create value for stakeholders.

Here is a list of some of the key markets the BDM team focuses on:

- Aquariums & Zoos
- Automotive & Aerospace
- Chemical / Bleach / Chloralkali
- Controlled Environmental Agriculture (CEA)
- Entertainment
- Food & Beverage Manufacturing
- Institutional / Governmental Institutions / Laboratories
- Landfills
- Lithium Battery Manufacturing and Recycling
- Marine and Offshore Oil & Gas
- Metal Finishing
- Mining
- Oil & Gas
- Pharmaceutical / Cosmetics / Life Sciences
- Power Generation
- Pulp & Paper
- Semiconductor
- Water/Wastewater Treatment

LUNCH AND LEARNS

Asahi/America's lunch and learn programs are educational sessions designed to provide valuable insights into the company's products, services, industry expertise and best practices, latest fusion methods, applications, and more. These sessions typically take place during lunchtime, making them convenient for busy professionals to attend without disrupting their work schedules. These sessions are typically non-accredited programs, and Asahi/America has the flexibility to cater to the unique need of the individual pursuing the lunch and learn session.

For more information on how to request a lunch a learn, visit our website at www.asahi-america.com or contact us using the form via the QR code on the next page!

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Request an ASPE presentation or lunch and learn here: https://www.asahi-america.com/resource-center/request-lunch-and-learn

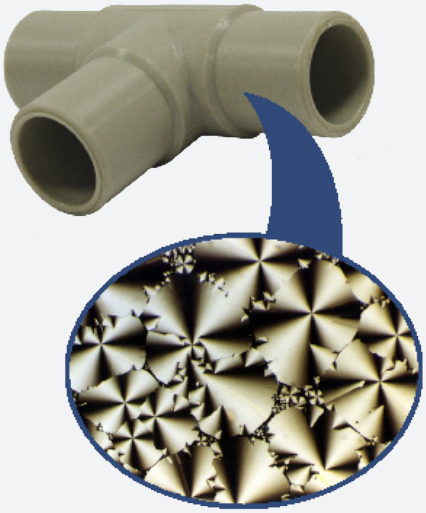
Presentation Title	CEU
Thermoplastic Piping Systems for Environmental & Industrial Applications	0.13
Polymer Comparisons for Thermoplastic Piping Systems	0.15
Thermoplastic Piping Systems for High Purity Applications	0.13
Advanced PE Piping Systems for Chemical Applications	0.13
Valve and Actuation Selection Criteria	0.13
HDPE Piping For Compressed Air Service	0.10

Presentation #1
Thermoplastic Piping Systems for Environmental & Industrial Applications

Learn about design and installation of thermoplastic piping systems designed for long-term use in chemical transport systems. Presentation includes an overview of single wall piping and double contained systems in multiple materials including PE, PP, PVDF, and ECTFE. Features and benefits as well as limitations will be discussed. This presentation will help engineers determine the appropriate solution for their chemical transport applications.

Learning Objectives

1. Material Overview
2. Benefits of Thermoplastics
3. Design Criteria
4. EPA Guidelines for Double Containment
5. Installation Considerations
6. Welding Methods, Equipment and Training



Presentation #2
Polymer Comparisons for Thermoplastic Piping Systems

The presentation will provide an overview of the different plastics used for chemical applications in pressure pipe and valve systems. Polymer chemistry fundamentals will be presented to help differentiate between polyolefins, polyvinyls, and fluoropolymers and their expected performance properties. Additional topics will include applying more advanced polymer chemistry principles to understand polymer crystallinity and its effects on materials like polypropylene and PVDF. Finally, we will look at case studies of practical field applications of the various materials.

Learning Objectives

1. Learn Polymer Fundamentals
   - Thermoplastics vs. Thermosets
   - Difference Between Polyolefins, Polyvinyls, and Fluoropolymers
   - Crystalline vs. Amorphous Polymer Regions
   - α vs. β Crystals and How They Affect Bulk Properties
   - Homopolymer vs. Co-polymer
   - ASTM D3350 for HDPE Grading
   - Fluoropolymer Basics -- Why are They a “Different” Material?
2. Fusion Welding vs. Cement Welding
3. Case Studies (+ information on struvite mitigation and seismic crack resistance)

Presentation #3
Thermoplastic Piping Systems for High Purity Applications

Learn about design and installation of thermoplastic piping systems designed for optimal performance of high purity water. Presentation includes overview of water system layout design, water purification equipment and piping material selection. Features and benefits of critical fitting and valve components for system operation will be discussed. An overview of high purity welding techniques and installation practices will also be reviewed.

Learning Objectives

1. Water System Design
2. Water Purification Equipment
3. Piping Material Selection
4. Critical Components
5. Thermal Expansion Design
6. Welding Methods
7. Installation Criteria

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Presentation Offerings

Presentation #4
Advanced PE Piping Systems for Chemical Applications

Presentation will provide an overview of chemical feed and dosing systems with emphasis on the use of advanced polyethylene (PE) material as compared to current typical materials such as PVC and CPVC. Topics covered include reasons for piping system failures, various pipe joining methods, and single and double wall piping applications. Welding demonstrations will be made.

Learning Objectives

1. Advanced PE Material Overview
2. Contrasting Benefits/Constraints of various Thermoplastic Materials
3. Chemical Process Design Criteria
4. Guidelines for Single Wall and Double Containment Piping
5. Installation Considerations
6. Welding Methods, Equipment and Training

Presentation #5
Actuation Selection Criteria

The presentation will provide an explanation of what valve actuation is, and an in-depth review of both pneumatic and electric actuators. The presentation will provide insight into proper actuator selection and sizing, and how to choose the correct actuator for the valve and system application being considered. Actuation methods are explained and mechanical exploded views and diagrams are utilized to further detail the construction and movement of the units. Various market applications are reviewed including aquariums, wastewater treatment plants, chemical and industrial applications and more.

Learning Objectives

1. Define Actuation
2. Explain Electric and Pneumatic Actuators
3. How Actuators work
4. Proper application of the two types of actuators
5. Installation Considerations and how they affect actuator selection
6. Accessory selection for improved system operation

Presentation #6
HDPE Piping For Compressed Air Service

The presentation will review compressed air safety considerations, material and installation costs. Material design for pressure, temperature and chemical resistance will be presented. A presentation of HDPE energy efficiency regarding comparative pumping pressures and flow rates will be presented.

Learning Objectives

1. HDPE Material Overview
2. Benefits of HDPE over Metallic Air Systems
3. Design Criteria
4. OSHA Guidelines and Safety Considerations
5. Installation Practices
6. Welding Methods, Equipment and Training

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