

PIPELINES 101 – BASIC PRINCIPLES OF ONSHORE PIPELINES

January 30-31, 2018
Royal Sonesta Houston
Houston, TX

RELATED EVENT:

**PIPELINES 102: PART 192
REGULATORY REQUIREMENTS FOR
NATURAL GAS PIPELINES**

January 30-31, 2018 | Houston, TX



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course

OVERVIEW

This is an introductory course to pipelines. The history of pipelines, definitions and terminology, and how pipelines work will be included in the discussion on the first morning. The focus will then move to natural gas and crude oil pipelines from the planning, design, and construction to the operation, safety, and maintenance of the pipelines.

The intent of this course is that participants will be able to apply the information learned when they return to their jobs. The instructors all have years of experience in pipelines. This course will also allow support staff to better understand and effectively interface with their business development, engineering, marketing and operating colleagues.

LEARNING OUTCOMES

- Compare the major differences in the types of pipelines
- Verbalize the vernacular related to pipeline terms of design, construction and operation
- Summarize how pipelines work
- Describe the route selection process
- Articulate the right of way acquisition process
- Recognize the types of pipeline equipment
- Explain the types of pipeline facilities
- Review the requirements for proper maintenance activities
- Discuss safety practices that need to be put in place
- Describe SCADA
- Demonstrate familiarity with the major codes and standards as well as pipeline regulatory agencies



“After being in the industry for 4 years it was nice to have a course that put all the information together in one place. It was an informative general overview and was great for someone in my position.”

Risk Analyst, Kinder Morgan



“The course provided a great foundation for professionals new to the pipeline industry.”

Field Engineer, COP

AGENDA

TUESDAY, JANUARY 30, 2018

8:00 – 8:30 am **Registration and Continental Breakfast**

8:30 am – 5:00 pm **Course Timing**

12:00 – 1:00 pm **Group Luncheon**

History of Pipelines

Pipeline Definitions and Distinguishing Differences

- Crude oil pipelines
- Natural gas pipelines
- Refined product pipelines
- Petrochemical and NGL pipelines
- Gathering lines
- Distribution lines
- Water, sewer and other types of pipelines

How Do Pipelines Work?

- Physics of fluid flow
- Friction losses
- Pipe lengths
- Elevation gain/losses
- Flow rates
- Hydraulic properties of hydrocarbon fluids

Basic Pipeline Design Requirements

- Design factors and class locations
- Pipeline sizing
- Road and water body crossings
- Terrain considerations
- Permitting requirements

Introduction to Pipeline Facility Engineering, Design, and Construction

- Route selection and route survey
 - Traditional and emerging methods
- Right-of-way/easement negotiations
- Pipeline construction (Pictorial Display)
- Other pre-construction actions

Pipeline Equipment and Facilities

- Pipeline equipment
 - Mainline valves
 - Pig launchers
 - Pig receivers
- Pipeline facilities
 - Meter stations
 - Pump stations
 - Compressor stations
 - Separation and dehydration
 - Processing equipment



“Great course for someone who is just entering the pipeline industry.”

Civil Engineer II, Hatch Mott MacDonald

AGENDA

WEDNESDAY, JANUARY 31, 2018

8:00 – 8:30 am **Continental Breakfast**

8:30 am – 5:00 pm **Course Timing**

12:00 – 1:00 pm **Group Luncheon**

Pipeline Maintenance and Safety

- Operations and maintenance activities
 - o Cathodic protection (natural gas and liquid)
 - o Leak survey (natural gas)
 - o Patrolling (natural gas and liquid)
 - o Continuing surveillance (natural gas)
 - o Breakout tanks (liquid)
 - o Regulator stations (natural gas)
 - o Pump stations (liquid)
 - o Compressor stations (natural gas)
 - o Valve maintenance (natural gas and liquid)
 - o Line markers & signs (natural gas and liquids)
 - o Fences and station security (natural gas and liquid)
 - o Smart pigging (natural gas and liquid)
 - o Integrity management-IMP (natural gas and liquid)
 - o Distribution integrity management-DIMP (natural gas)
 - o Odorization (natural gas)
 - o Pipeline repair and reconditioning (natural gas and liquid)
 - o Welding (natural gas and liquid)
 - o Plastic pipe (natural gas and liquid)
 - o Control room management (natural gas and liquid)
 - o Gathering line operation & maintenance (natural gas and liquid)
 - o Other DOT required tasks

- Safety practices
 - o Communication with public, other utilities, county & local governments
 - o Codes & regulatory standards
 - PHMSA regulations
 - Integrity management
 - o Operator driven

Introduction to SCADA, Communication, and Controls

- Basic vocabulary
- Overview of the control scheme

AGENDA

WEDNESDAY, JANUARY 31, 2018 (CONTINUED)

Introduction to Pipeline Regulation

- Environmental permitting
 - o US Army Corps of Engineers
 - o US Fish and Wildlife Service
 - o Migratory Bird Treaty Act
 - o National Historic Preservation Act – Section 106 compliance
 - o Pipelines on Tribal lands
 - o Federal land management agencies (BLM, USFS, BOR)
 - o NEPA compliance
- Introduction to the FERC process and compliance
- State regulations
- Environmental compliance during construction

Q & A, Course Assessment, and Adjournment

COURSE INSTRUCTORS

Thomas Lael

Formerly with ConocoPhillips Pipeline Company

Mr. Lael has been involved with the pipeline industry for over 45 years. He has worked for various State Pipeline Regulatory agencies (Illinois, Connecticut, and California) and the Federal government (Transportation Safety Institute, now known as Training and Qualification's (T&Q)). More recently Mr. Lael has worked for major petroleum pipeline operators as a code compliance officer, and Operator Qualifications Administrator. He has been responsible for determining the operator's compliance with Federal and State pipeline safety regulations and determining the intent of current and proposed PHMSA regulations.

Mr. Lael spent ten years working with ConocoPhillips as the OQ administrator for the company OQ program. His employment with ConocoPhillips evolved from his initial employment with Tosco Corporation starting in 1999, merged into Phillips Pipeline Company in 2001 and finally into ConocoPhillips in 2002. He was responsible for the OQ qualifications for approximately 950 employees and over 1,500 contract individuals.

Mr. Lael has worked as an expert witness on legal cases concerning pipeline safety and accident/incident investigations. Mr. Lael has investigated numerous natural gas and petroleum pipeline explosion and fires.

Don McCoy

Formerly with PHMSA's Office of Pipeline Safety

Don is a native of Georgia and a graduate of Georgia Tech with a bachelor's degree in aerospace engineering. After several years in the aerospace industry, Don changed careers to the natural gas industry and pipeline safety, including regulatory stints with the Georgia Public Service Commission and the U.S. Department of Transportation's Pipeline & Hazardous Materials Safety Administration – Office of Pipeline Safety. Don's pipeline industry experience included 40+ years at Oklahoma-based companies Mustang Fuel Corporation, Enogex Inc., Chesapeake Energy, Chesapeake Midstream, and Access Midstream.

INSTRUCTIONAL METHODS

PowerPoint presentations and discussion will be used in this course.

REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must sign in/out each day and be in attendance for the entirety of the course to be eligible for continuing education credit.

EVENT LOCATION

A room block has been reserved at the Royal Sonesta Houston, 2222 West Loop S, Houston, TX 77027, for the nights of January 31 – February 1, 2018. Room rates are \$169 plus applicable tax. Call **1-713-627-7600** for reservations and mention the EUCI event to get the group rate. The cutoff date to receive the group rate is December 31, 2017 but as there are a limited number of rooms available at this rate, the room block may close sooner. ***Please make your reservations early.***

IACET CREDITS



EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

EUCI is authorized by IACET to offer 1.5 CEUs for the course

REGISTER 3, SEND THE 4TH FREE

Any organization wishing to send multiple attendees to this course may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.

REGISTRATION
to register [CLICK HERE](#) or

Call: 201 871 0474
fax: 253 663 7224
email: register@pmaconference.com
web: <http://pmaconference.com/>
Mail: POB 2303 Falls Church Va 22042

Please make checks payable to: "PMA"

EVENT LOCATION

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PLEASE SELECT

- BOTH PIPELINES 101 – BASIC PRINCIPLES OF ONSHORE PIPELINES AND PIPELINES 102: PART 192 REGULATORY REQUIREMENTS FOR NATURAL GAS PIPELINES**
COURSES: JANUARY 30 - FEBRUARY 2, 2018 : US \$2595
 EARLY BIRD on or before JANUARY 12, 2018: US \$2395
- PIPELINES 101 – BASIC PRINCIPLES OF ONSHORE PIPELINES COURSE ONLY:** JANUARY 30-31, 2018: US \$1495
 EARLY BIRD on or before JANUARY 12, 2018: US \$1295

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

Print Name Job Title

Company

What name do you prefer on your name badge?

Address

City State/Province Zip/Postal Code Country

Phone Email

List any dietary or accessibility needs here

CREDIT CARD INFORMATION

Name on Card Billing Address

Account Number Billing City Billing State

Exp. Date Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx) Billing Zip Code/Postal Code

OR Enclosed is a check for \$ _____ to cover _____ registrations.

Substitutions & Cancellations

Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before December 29, 2017 in order to be refunded and will be subject to a US \$195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCL event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of course cancellation, EUCL's liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our offices at (201) 871-0474.