

# FUNDAMENTALS OF PIPELINE INTEGRITY MANAGEMENT

March 16, 2017  
EUCI Offices, 4601 DTC Blvd  
Denver, CO



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

## OVERVIEW

Recent high profile pipeline failures have focused a great amount of attention on pipeline integrity management. Understanding applicable threats to an operator's pipeline, and properly managing the identified threats is absolutely critical for continued safe, reliable service, as well as regulatory compliance at the state and federal level. This course serves as a primer on common integrity threats, failure mechanisms, and proper integrity management from an engineering perspective. This class will cover common failure mechanisms including third party damage, internal and external corrosion, stress corrosion cracking, manufacturing defects, and operational issues. Proper mitigation of these threats will be discussed, including a review of the governing document ASME B31.8S.

## LEARNING OUTCOMES

- Explain transmission integrity management (TIMP)
- Review threats to transmission integrity management
- Describe distribution integrity management (DIMP)
- Assess MAOP establishment
- Discuss strength test requirements for MAOP establishment

## INSTRUCTOR



### Alex Hudgins

#### Senior Managing Engineer, Exponent

Dr. Hudgins specializes in failure analysis, metallurgy, materials science, corrosion, and fracture mechanics with particular focus in the oil and gas industry. Specifically, Dr. Hudgins applies metallurgical fundamentals and industrial knowledge to oil and gas pipelines, helping clients solve real-world problems threatening their assets and safe operation. Dr. Hudgins also helps pipeline operators with operational issues, indication remediation, operating pressure validation, integrity assessment, and management of historical and new pipeline data to allow more efficient and effective integrity management.

At Exponent, Dr. Hudgins has spent years working specifically with transmission and distribution pipelines, including failure analysis of incidents and indications. Projects have ranged from relatively low-pressure distribution leaks to high-consequence transmission line ruptures. In these investigations, Dr. Hudgins applies analytical techniques including optical and scanning electron microscopy, microhardness, nanoindentation, and mechanical testing to determine the cause of the incident, and help operators prevent similar events from occurring in the future.

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# AGENDA

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THURSDAY, MARCH 16, 2017

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

**8:30 am– 4:00 pm Course Timing**

**12:00 – 1:00 pm Group Luncheon**

**Common Failure Mechanisms**

- Recent failures
- Manufacturing defects, corrosion, third party damage, fatigue

**Integrity Management**

- Transmission Integrity Management (TIMP)
  - o Code requirements – subpart O
  - o Class locations, HCA, potential impact radius (PIR)
  - o Threats
    - Time dependent (internal and external corrosion, SCC)
    - Static or resident threats (manufacturing defects)
    - Time independent threats (3rd party damage)
    - Human error
  - o Direct assessment
  - o In-line inspection, strength testing
  - o ASME/ANSI B31.8S
- Distribution Integrity Management (DIMP)
  - o New (2010)
  - o Code requirements – subpart P

**MAOP Establishment**

- Code requirements – subpart L
- Strength test requirements – subpart J
- Upgrading – subpart K
- History / Grandfather / Integrity verification procedure (IVP)

**Course Assessment, Learning Outcome Review and Q&A Session**



# REQUIREMENTS FOR SUCCESSFUL COMPLETION OF PROGRAM

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

## INSTRUCTIONAL METHODS

Case studies, PowerPoint presentations, classroom exercises

## PROCEEDINGS

The proceedings of the course will be published, and one copy will be distributed to each registrant at the course.

## EVENT LOCATION

### EUCI Offices

4601 DTC Blvd. Suite 800  
Denver, CO 80237

## NEARBY HOTELS

### Hyatt Regency Denver Tech Center

7800 E. Tufts Ave  
Denver, CO 80237  
Phone: 303-779-1234  
0.3 miles away

### Hilton Garden Inn Denver Tech Center

7675 E. Union Ave  
Denver, CO 80237  
Phone: 303-770-4200  
0.7 miles away

### Denver Marriott Tech Center

4900 S. Syracuse St  
Denver, CO 80237  
Phone: 303-779-1100  
0.7 miles away

### Hyatt Place Denver Tech Center

8300 E. Crescent Parkway  
Greenwood Village, CO 80111  
Phone: 303-804-0700  
0.9 miles away

## 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.

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# REGISTRATION INFORMATION

# EVENT LOCATION

**Mail Directly To:**

Electric Utility Consultants, Inc. (EUCI)  
4601 DTC Blvd., Ste. 800  
Denver, CO 80237  
OR, scan and email to: [courses@euci.com](mailto:courses@euci.com)

**WWW.EUCI.COM****p: 303-770-8800****f: 303-741-0849****EUCI Offices**

4601 DTC Blvd. Suite 800  
Denver, CO 80237

*See nearby hotels on page 4*

## PLEASE SELECT

**FUNDAMENTALS OF PIPELINE INTEGRITY  
MANAGEMENT COURSE: MARCH 16, 2017: US \$995,**  
Early Bird on or before FEBRUARY 24, 2017: US \$895

## ENERGIZE WEEKLY

EUCI's Energize Weekly e-mail newsletter compiles and reports on the latest news and trends in the energy industry. Newsletter recipients also receive a different, complimentary course presentation every week on a relevant industry topic. The presentations are selected from a massive library of more than 1,000 current presentations that EUCI has gathered during its 29 years organizing courses.

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

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**CREDIT CARD INFORMATION**

Name on Card

Account Number

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Billing City

Billing State

Billing Zip Code/Postal Code

Exp. Date

Security Code (last 3 digits on the back of Visa  
and MC or 4 digits on front of AmEx)

**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 February 10, 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 EUCI 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, EUCI'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 303-770-8800. EUCI reserves the right to alter this program without prior notice.

