MITIGATING METHANE EMISSIONS & LEAK DETECTION

Leading Practices, Case Studies, and Regulations Across Multiple Industries

August 11-12, 2020
Online | Central Time

EUCI is pleased to offer this virtual conference on its online interactive platform. Enjoy a valuable learning experience with a smaller impact on your time and budget. You will gain new knowledge, skills, and hands-on experience from the convenience of your remote location.

“Effective, concise forum of industry subject matter experts on topic presented.”
Regional Manager, Envea Altech
OVERVIEW

Methane’s lifetime in the atmosphere is much shorter than carbon dioxide, but pound for pound, the comparative impact of Methane is 25 times greater than carbon Dioxide over a 100-year period. One of the largest emitters comes from the oil and gas industries, where reducing methane emissions from operations is among the biggest greenhouse gas bargains in the world. Capturing and converting the approximately $60 billion in wasted natural resources from leaky pipelines, are an immediate, actionable opportunity to help avert catastrophic climate change and improve a key industry’s climate performance, while boosting operational efficiency. In our carbon-constrained world, methane emissions are now an intrinsic threat to the oil and gas industry. It is therefore imperative that this industry commits the resources in all forms now to address this enormous risk to their business and, more importantly, our common future.

Methane emissions also result in an estimated $1.3 billion in lost product from flaring each year for the oil and gas industry. Methane, the primary component of unburned natural gas, can emanate from a variety of sources along the natural gas supply chain, including equipment designed to release methane as a matter of mechanical operation (i.e. venting) and from unintended leaks throughout the system (i.e. fugitives).

EUCI’s symposium on mitigating methane emissions will bring together industry leaders including utilities, international regulators, and respected SMEs to share on the latest policy developments and practices in reducing methane emissions. Our scope of content will also cover presentations on the methods for leak quantification and leak detection as well as management to help avert catastrophic climate change and improve a key industry’s climate performance.

LEARNING OUTCOMES

- Utilize temporary compression to minimize methane emissions
- Gain a fundamental understanding of how and why these leaks occur including design and maintenance faults
- Hear cutting edge progress and case studies from utilities such as Pacific Gas & Electric, Sempra Utilities, and CMS Energy
- Discuss technologies used to reduce methane emissions and their limitations
- Discuss quantifiable emission reporting
- Review regulations with methane mitigation
- Identify methane blowdown & leak mitigation technologies on pipelines & compressor stations
- Review the implementation of a methane reduction & reporting program
- Identify how leading companies and regulatory agencies are mitigating emissions from the natural gas value chain and reporting outcomes
- Assess accounting approaches for different transmission and distribution asset categories
- Compare measured vented emissions by operating mode - single vs multiple data points
- Evaluate compression cost to gas lost
- Discuss pressure reduction (safety considerations)
- Identify emergent and rapidly improving data analytics
- Review hot tapping/Line stopping technology to dramatically reduce pipeline blowdowns
- Identify market opportunities for differentiated gas

WHO SHOULD ATTEND

This conference is an open-access event intended for oil/gas stakeholders with interest in reducing emissions and driving a greener future. There is no prerequisite requirement as this conference will feature a comprehensive dive into policy and practice from all angles.
AGENDA

TUESDAY, AUGUST 11, 2020  -  CENTRAL TIME

8:45 – 9:00 am  
Log In and Sound Check

9:00 – 10:00 am  
State of the Industry Address and Methane 101  
This presentation will provide a comprehensive overview of the sources of methane emissions in the United States, why methane matters and how to mitigate its emissions based on the source. Multiple industries will be discussed, including coal mining, oil and natural gas systems, and agriculture and waste sectors. Highlights include emissions data from EPA’s Inventory of U.S. Greenhouse Gases and Sinks and other data from the voluntary EPA programs that track methane recovery and use projects.  
Lauren Aepli, Physical Scientist, Environmental Protection Agency (EPA)

10:00 – 10:45 am  
California Air Resources Board Methane Emission Standards for Crude Oil and Natural Gas Facilities  
In 2017, the California Air Resources Board (CARB) approved the Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities Regulation (Oil and Gas Methane Regulation) to reduce methane emissions in California. Since the regulation began implementation on January 1, 2018, CARB has been working with operators on the online submittal of facility and equipment data, LDAR survey results, compressor and pneumatic flow rates, and liquids unloading and well casing vent reporting. As the implementation of CARB’s Oil and Gas Methane Regulation proceeds, this reported data will be a valuable resource of real-world emissions information. This presentation will cover the requirements and impacts of the regulation and include data from 2018 LDAR reporting.  
Lucy Cheadle, Air Resources Engineer, Industrial Strategies Division, CARB

10:45 – 11:00 am  
Break

11:00 – 11:45 am  
Alberta’s Upstream Oil and Gas Methane Reduction Requirements  
The Alberta Energy Regulator has developed requirements to reduce methane emissions from upstream oil and gas operations by 45 per cent (relative to 2014 levels) by 2025. This presentation will include a summary of the requirements, a description of the compliance assurance activities taking place, and a discussion of relevant methane research topics and existing knowledge gaps.  
Cassandra Schostek, Technical Advisor, Alberta Energy Regulator

11:45 am – 12:30 pm  
Case Study: Utilizing Temporary Compression to Minimize Methane Emissions  
• Consumers Energy (CE) company overview  
• CE Gas system overview  
• Case for temporary compression  
• CE history with temporary compression, including methane emissions  
• Future potential methane mitigation  
Amy Kapuga PE, Env Services-Air Quality, Consumers Energy

12:30 – 1:30 pm  
Lunch Break
**AGENDA**

**TUESDAY, AUGUST 11, 2020 - CENTRAL TIME (CONTINUED)**

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<th>Time</th>
<th>Session</th>
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| 1:30 – 2:15 pm | **Life Cycle Analysis Perspective of Methane Emissions in the Natural Gas Supply Chain**  
Selina Roman White, Department of Energy, Department of Energy |
| 2:15 – 3:00 pm | **Inspection Services for T&D Operations**  
Win Setiawan, Lead Staff Air Pollution Specialist, CARB |
| 3:00 – 3:15 pm | Break |
| 3:15 – 4:00 pm | **Quantifying Meter Set Leaks Using Soap Test Classification**  
Methane emissions from meter set leaks have been historically computed with a simple, population based, emission factor representing the average emission per meter set. A new method using the soap test classification performed by field crews has been developed to refine emission estimates and to allow repair prioritization of larger leaks.  
Stephen Ramos, Gas Engineer, PG&E |

**WEDNESDAY, AUGUST 12, 2020 - CENTRAL TIME**

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<th>Time</th>
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<td>8:45 – 9:00 am</td>
<td>Log In and Sound Check</td>
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| 9:00 – 10:00 am | **Methane Blowdown & Leak Mitigation Technologies on Pipelines & Compressor Stations**  
Drivers for better managing methane emissions, EPA methane mitigation programs:  
• Overview of EPA’s Natural Gas STAR program  
• A deeper look at EPA’s Natural Gas STAR Methane Challenge program and the One Future Industry Coalition  
• Kinder Morgan and One Future  
• Methane Challenge Finding success with methane emission reduction efforts  
• Methane program highlights  
• Kinder Morgan continuous improvement efforts  
Reji George, Director Air Permitting and Compliance, Kinder Morgan |

“Condensed, effective network and technology forum.”
Environmental Engineer, Altech

“This Symposium was exactly at the level of content I need for continuing my assignment in methane emissions reduction.”
Senior Utilities Engineer, CPUC
WEDNESDAY, AUGUST 12, 2020 - CENTRAL TIME (CONTINUED)

10:00 – 10:45 am  Leak Screening for Detection and Mitigation of Large Distribution Leaks Plus Development of Company-Specific Emission Factors
Case study of an analytic model developed by SoCalGas to leverage data collected during traditional leak survey, detection, and grading process to screen for large leaks resulting in more cost-effective emissions reductions. Bayesian approach includes development of company-specific emission factors, independent of typical facility and pipeline material sub-categories, for improved emissions estimates. 
Edward Newton, Research & Materials Manager, Southern California Gas Company (SoCalGas)

10:45 – 11:00 am  Break

11:00 – 11:45 am  Methane Emission Quantification of Compressor and Regulator Stations Using Small UAV (Unmanned Aerial Vehicles)
A new approach is being explored by PG&E to quickly screen compressor and regulator stations for methane emissions using fly over by UAV equipped with a high sensitivity detector. The method provides the overall emission rate of the facility as well as the identification of its most emitting sub-systems. Results can be used to prioritize maintenance and better characterize emissions of these stations.
François Rongere, Manager - R&D and Innovation Gas Operations, PG&E

11:45 am – 12:30 pm  Methane Emissions Reduction Program
The goal of the Williams Methane Emissions Reduction Program is to reduce methane emissions across their Northeast Assets by 25% (as compared to 2017 figures) without impacting safety or operation thereby allowing operation with fewer Greenhouse gases emitted. The presentation will cover emissions sources identified across the Northeast Operating Area – Gas Gathering Assets and data validation/ site modifications executed to reduce methane emissions reporting. The program is comprised of internal resources using various tools/platforms to trend data, incidents and track ongoing analytics going forward.

Objectives of presentation highlights
• Discuss methodology for site selection and type of emissions reduction projects
• Discuss progress made on the emissions reduction program
• Review tracking tools for progress updates
Justin Adams, Manager of Technical Services, Williams
INSTRUCTIONAL METHODS

Power Point presentations and open discussion will be used.

IACET CREDITS

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EUCI is authorized by IACET to offer 0.9 CEUs for the conference.

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We will be using Microsoft Teams to facilitate your participation in the upcoming event. You do not need to have an existing Teams account in order to participate in the broadcast – the conference will play in your browser and you will have the option of using a microphone to speak with the room and ask questions, or type any questions in via the chat window and our online administrator will relay your question to the instructor.

• You will receive a meeting invitation which will include a link to join the meeting.
• Separate meeting invitations will be sent for the morning and afternoon sessions of the conference.
  o You will need to join the appropriate meeting at the appropriate time.
• If you are using a microphone, please ensure that it is muted until such time as you need to ask a question.
• The remote meeting connection will be open approximately 30 minutes before the start of the conference. We encourage you to connect as early as possible in case you experience any unforeseen problems.

REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must login for the entirety of the conference to be eligible for continuing education credit.
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  ONLINE CONFERENCE:
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  * all other discounts do not apply to license packs

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Online Conference Delivery & Participation Details

See page 6 for information

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

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Account Number

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.

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Date

EUCI reserves the right to alter this program without prior notice.

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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 July 10, 2020 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 conference 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.