AGA Operations Conference & Biennial Exhibition
May 2–5, 2017
Gaylord Palms • Orlando, Florida

PRELIMINARY PROGRAM

Safety & Operational Excellence – Across the Globe!
Schedule at a Glance

Sunday, April 30, 2017

7:00 am - 11:00 am  Volunteer Activity A - Give Kids the World
11:00 am - 3:00 pm  Volunteer Activity B - Give Kids the World
1:30 pm - 4:15 pm  Steering Groups Planning Meeting – current and past committee officers (Meeting registrants and by invitation only)
4:00 pm - 7:00 pm  Registration
4:45 pm - 5:30 pm  Optional Activity: Boot Camp Lite
6:00 pm - 7:15 pm  Networking Reception (Meeting registrants and by invitation only)

Monday, May 01, 2017

6:30 am - 7:30 am  Pipeline Safety Regulatory Update – Breakfast Provided (All registrants invited)
6:30 am - 7:00 pm  Continental Breakfast
7:00 am - 8:00 am  Registration
8:00 am - 5:00 pm  Pre-conference spring committee meetings (Meeting registrants and by invitation only)
12:00 pm - 1:00 pm  Awards of Merit Lunch (All registrants invited)
5:15 pm - 6:15 pm  Optional Activity – AGA Annual Operations 5K Fun Run/Walk
6:15 pm - 7:15 pm  Networking Reception (Meeting registrants and by invitation only)

Tuesday, May 02, 2017

7:00 am - 8:00 am  Continental Breakfast
7:00 am - 8:30 pm  Registration
8:00 am - 4:30 pm  Pre-conference spring committee meetings (Meeting registrants and by invitation only)
11:30 am - 1:30 pm  Preview Lunch – Exhibit Hall
5:00 pm - 5:40 pm  Awards Reception (Awards of Merit, Safety Achievement & individual industry award winners; by invitation)
6:00 pm - 9:00 pm  Grand Opening Reception – Exhibit Hall

Wednesday, May 03, 2017
Schedule at a Glance

Wednesday, May 03, 2017

7:00 am - 8:00 am  Continental Breakfast

7:00 am - 7:00 pm  Registration

8:00 am - 9:15 am  General Session

9:35 am - 11:00 am  Track A

- Track A1: Gas Utility Management
- Track A2: Gas Control
- Track A3: Distribution Integrity Management
- Track A4: Safety
- Track A5: Distribution Measurement
- Track A6: Construction Operations
- Track A7: Security/Field Operations
- Track A8: Workforce Development

11:00 am - 2:00 pm  Buffet Lunch – Exhibit Hall

11:00 am - 5:30 pm  Customer Appreciation Day – Exhibit Hall

2:15 pm - 5:30 pm  Hands-On Demonstrations – Exhibit Hall

2:15 pm - 5:20 pm  Track B

- Track B1: Pipeline Safety/Transmission Integrity Management
- Track B2: Gas Control/Distribution Integrity Management
- Track B3: Supplemental Gas/Distribution Integrity Management/Field Operations
- Track B4: Safety
- Track B5: Distribution Measurement/Customer Field Services
- Track B6: Gas Utility Management/Construction Operations
- Track B7: Transmission Measurement
- Track B8: Workforce Development
Schedule at a Glance

Wednesday, May 03, 2017

2:35 pm - 2:55 pm  Break

5:30 pm - 7:00 pm  Cocktail Hour – Exhibit Hall

Thursday, May 04, 2017

7:00 am - 5:00 pm  Registration

7:30 am - 8:30 am  Continental Breakfast

8:00 am - 9:35 am  Track C

Track C1: Distribution & Transmission Integrity Management

Track C2: Field Operations/Gas Control

Track C3: Supplemental Gas

Track C4: Safety

Track C5: Customer Field Services

Track C6: Environmental Management

Track C7: Transmission Measurement

Track C8: Workforce Development

9:35 am - 10:00 am  Break

10:00 am - 11:35 am  Track D

Track D1: Distribution & Transmission Integrity Management

Track D2: Field Operations

Track D3: Plastic Materials/Corrosion Control

Track D4: Safety

Track D5: Customer Field Services

Track D6: Environmental Management

Track D7: Transmission Measurement/Supplemental Gas

Track D8: Gas Utility Management
Schedule at a Glance

Thursday, May 04, 2017

11:35 am - 12:45 pm  AGA Leadership Lunch "Make Safety Fun" – All Registrants Invited
1:00 pm - 3:25 pm  Track E
  Track E1: Transmission Integrity Management/Engineering
  Track E2: Construction Operations
  Track E3: Corrosion Control
  Track E4: Field Operations/Plastic Materials
  Track E5: Underground Storage
  Track E6: Environmental Management
  Track E7: Transmission Measurement
  Track E8: Safety Culture Workshop (Start time 1:50 p.m.)

3:45 pm - 5:20 pm  Track F
  Track F1: Engineering/Transmission Integrity Management
  Track F2: Gas Utility Management
  Track F3: Corrosion Control
  Track F4: Distribution Integrity Management/Plastic Materials
  Track F5: Underground Storage
  Track F6: Quality Management/Pipeline Safety
  Track F7: Transmission Measurement
  Track F8: Safety Culture Workshop (cont'd)

Friday, May 05, 2017

7:00 am - 8:00 am  Hot Breakfast
8:00 am - 10:25 am  Track G
  Track G1: Quality Management
  Track G2: Engineering
Schedule at a Glance

Friday, May 05, 2017

Track G3: Corrosion Control/Field Operations

Track G4: Transmission Integrity Management

Track G5: Underground Storage
Breakout Sessions - Wednesday, May 3

**Track A1**

9:35 am - 11:00 am  
Gas Utility Management

9:35 am - 10:15 am  
From Compliance to Value  
Creation: National Grid’s  
Transformational Public  
Awareness Outreach Initiative  
National Grid has transformed its Pipeline Public Awareness Program from "compliance" to "strategic advantage," increasing efficiency, improving stakeholders’ ability to recognize and respond to utility emergencies, and enhancing customer satisfaction. This presentation describes how this transformational approach to pipeline safety regulation and compliance adds value for customers and investors. Coauthor: B. Culver, Culver Co.

**Kathleen McNamara**  
Manager  
National Grid

10:20 am - 11:00 am  
"Lessons Earned and Learned": NW Natural’s  
Response to a Building Explosion  
This presentation will provide a review of emergency response, crisis communications, community recovery, and lessons learned and earned during NW Natural’s handling of a third party damage event that resulted in significant damage that impacted businesses and residences in the central city area of Portland, Oregon.

**Grant M. Yoshihara**  
Senior Vice President, Operations & Chief Engineer  
NW Natural

11:00 am - 2:00 pm  
Buffet Lunch - Exhibit Hall

**Track A2**

9:35 am - 11:00 am  
Gas Control

9:35 am - 10:15 am  
A Structured Approach to  
Controller Training Programs  
Training is required to meet business needs and regulatory requirements. Organizations should have standards and guidance for how training of both new and experienced employees is conducted. This presentation will focus on how training programs have been developed and implemented in natural gas control rooms with quality, economy and efficiency. Coauthor: C. Alday, Pipeline Performance Group.

**Ali Gibson**  
Principal CRM Consultant  
Pipeline Performance Group

**Craig Watson**  
Pipeline Performance Group

10:20 am - 11:00 am  
Controller Alertness,  
Workload Levels and Time of Day  
Over the past five years Pipeline Performance Group has conducted more than 165 assessments measuring controllers’ workloads in liquids and gas control rooms. This presentation discusses the relationship between controller alertness and workload levels. The differences in alertness at different times of the day and between shifts also will be examined. Coauthors: A. Gibson, J. Daigneau and C. Alday - Pipeline Performance Group.

**Michele Terranova Ph.D.**  
Principal Human Factors Consultant  
Pipeline Performance Group

11:00 am - 2:00 pm  
Buffet Lunch - Exhibit Hall

**Track A3**

9:35 am - 11:00 am  
Distribution Integrity Management

9:35 am - 10:15 am  
Preventing Excavation  
Damage Using a Ticket Risk Model  
NiSource and Opvantek will share results from using Optimain xDR to help focus daily damage prevention activities on active one-call tickets with the highest risk. The system makes use of data from one-call tickets and historic damage records, along with the assets at risk from the company’s GIS.

**Amy Koncelik**  
Manager, Damage Prevention  
NiSource

**Tony Sileo**  
Vice President, Sales & Product Management  
Opvantek, Inc.

10:20 am - 11:00 am  
Making Risk-Informed and  
Value-Based Decisions to  
Maximize the Impact of Your  
Integrity Management Program  
Are you able to create defensible and prioritized asset replacement plans that ensure your organization is not exposed to unacceptable levels of risk? Learn how to explore the impact of different funding strategies and timing on risk, and create an investment that delivers the highest value. Coauthor: A. Valentine, JANA Corp.

**Phil Jones**  
Vice President, Sales  
Copperleaf Technologies

11:00 am - 2:00 pm  
Buffet Lunch - Exhibit Hall
Track A4
9:35 am - 11:00 am
Safety

9:35 am - 10:15 am
Top of the Class –
Presentation by AGA Safety
Achievement Award
Recipient

Speaker TBA

10:20 am - 11:00 am
Human Performance
Improvement Through a Just Culture

This presentation will cover the principles of Human Performance Improvement, the reasons people make errors, and how to reduce human error. Establishing an open, reporting culture will be discussed, along with reasons people do what they do, and make the risk choices that they make.

Joel Heim
Manager, Training and Development
Northern Indiana Public Service Co.

11:00 am - 2:00 pm
Buffet Lunch - Exhibit Hall

Track A5
9:35 am - 11:00 am
Distribution Measurement

9:35 am - 10:15 am
Leveraging Gas Smart Meter Technology to Improve Energy Choice
Leveraging gas smart meter technology to support gas choice supplier(s) delivery forecasts, variance identification and true-up. The process focuses on unique gas supplier and customer demographics and associated daily usage, better matching supplier delivery costs against customer revenue, thus reducing price/cost risks. Coauthors: K. Colhouer, T. Cheedalla and A. Satterfield - BGE, An Exelon Co.

Mike McShane
Manager, Energy Supplier Services
BGE, An Exelon Co.

10:20 am - 11:00 am
Validation Testing Over-the-Air FW Download to Gas Modules on a Gas AMI Network
OTAFWDL is an AMI, two-way fixed network feature to enable new capabilities and correct bug fixes in endpoints. This presentation focuses gas endpoint considerations: battery power, reachability, time synchronization, encryption, download carousels, retries, failure remediation and how PECO tested this capability on its production AMI network to ensure it worked.

Glenn Pritchard
Manager, SGSM Network Engineering
PECO, An Exelon Co.

Joseph Turgeon
Principal Consultant
Black & Veatch Corp.

11:00 am - 2:00 pm
Buffet Lunch - Exhibit Hall

Track A6
9:35 am - 11:00 am
Construction Operations

9:35 am - 10:15 am
Service Line Abandonment Without Excavation
Peoples Gas is piloting a project to abandon a service line from inside the customer premise under no-blow conditions. The company taps into the elbow entering the home, inserts and inflates bags to stop the gas, then disassembles the piping and installs a plug. The savings are substantial.

Julie K. Maupin
Supervisory Engineer
WEC Energy Group

10:20 am - 11:00 am
10 Years of 811: How the National Call Before You Dig Phone Number Changed Damage Prevention
In 2007, the national call before you dig phone number 811 went into effect, changing the way gas operators would promote damage prevention to the public. This session looks back on the past 10 years of collaborative efforts by gas operators and looks forward to opportunities for future partnerships.

Khrysanne Kerr
Vice President, Communications
Common Ground Alliance

11:00 am - 2:00 pm
Buffet Lunch - Exhibit Hall
Natural gas utilities are part of a community categorized by the Federal government as critical infrastructure and essential to our Nation’s economy. Regardless of utility size, all are potential targets by hackers or vectors to more significant targets.

Who is responsible for cybersecurity? Who are the bad guys? How do you protect yourself and your company? Come find out.

Tamara Lance
Director, IT Operations
Atmos Energy Corp.

Rebecca M. Massello
Security & Operations Manager
American Gas Association

ONE Gas’ experience implementing an improved process for determining exceptionally high customer gas usage, responding to high reports for customer safety, and covering technical, operational and legal issues involved with high exception reports. Includes data and examples regarding the generation of investigation orders, rereads and total reports under the new criteria. Coauthor: R. Woods, ONE Gas, Inc.

Wayne Baird
Manager, Customer Service
ONE Gas, Inc.

Lynn Hursh
Partner
Armstrong Teasdale, LLP

Nicor Gas, Exelon, ComEd, Peoples Gas, BP and the National Energy Education Development (NEED) Project have developed a unique multiple year collaboration designed to engage and encourage 5th – 8th teachers and students to explore and understand all forms of energy, its impacts and the associated careers. You will learn the key elements the team used to leverage resources, engage local schools, and provide modern science curriculum while integrating key utility messages about energy and the sector. The program is currently engaging 80 schools and reaching thousands of students in just its second year.

Speaker TBA

Nicor Gas Energizing Student Potential (ESP) Program

3:05 pm - 4:45 pm
San Bruno Pipeline Incident – Different Metallurgical Perspectives

Robert Fassett
Senior Vice President, Engineering & Integrity Management Services
E2 Consulting Engineers, Inc.
In 2014, the industry funded the development of technology to enhance new construction-quality inspections through electronic data capture and data visualization to identify trends. This program is developing next-generation technology that will include a risk-based model to prioritize quality inspection activities to align with integrity management programs.

Alicia M. Farag  
Vice President, Operations  
LocusView Solutions, a GTI Subsidiary

5:30 pm - 7:00 pm  
Cocktail Hour - Exhibit Hall

Leadership’s Role in Catastrophic Incident Prevention – Developing Influence Through the Principles of High Reliability Safety

Early warning signs have been shown to precede the occurrence of catastrophic safety incidents. This presentation reviews contemporary research involving the leadership attributes of high reliability organizations and their use of anticipation, inquiry, execution and resilience to significantly improve the detection of and response to early warning signals.

James Grant  
Vice President  
DEKRA Insight

5:30 pm - 7:00 pm  
Cocktail Hour - Exhibit Hall
Results of a recent PHMSA-funded research project to review PHMSA’s LNG Failure Rate Table will be presented. The project reviewed relevant equipment failure data globally, performed a statistical review, identified gaps, and recommended refinements and next steps to support PHMSA’s safety standards for LNG facility siting, design and operation. Coauthors: E. Lever, S. Acharya - GTI; P. Suter, CH-IV International Inc.

Rich Kooy P.E.
Senior Program Manager
GTI - Gas Technology Institute

Naresh Aligeti
GIS Development Analyst II
ONE Gas, Inc.

Colin Schoonover
Manager, Asset Strategy
ONE Gas, Inc.

Sewer Cross Bore Risk Model
This presentation will outline a risk model for inspections of gas cross bores primarily in sewer facilities. Essentially, the presenters are creating a model that assigns a risk value to a parcel or gas main based on observed trends and records. This risk value can be used to prioritize inspections.

Abe Romo
Senior Engineer
Puget Sound Energy

David Stiger
Puget Sound Energy

How to Move the Focus From Injury to Exposure
The old paradigm of trying to prevent injuries keeps us from managing the exposure that drives the injuries. This presentation will lay the foundation for shifting the organization to exposure discovery and mitigation versus a dependence on the employee and supervisor accurately assessing the likelihood of an injury occurring.

Jim Spigener
Sr. Vice President
DEKRA Insight
Breakout Sessions - Wednesday, May 3

4:40 pm - 5:20 pm
Corrective Action Program (CAP) – Influence on a Positive Safety Culture
PG&E Gas Operations is evolving its safety culture. An enabler has been the launch of the Gas Corrective Action Program (CAP) in 2013. The discussion will highlight PG&E's journey with CAP from inception to today and how it has enabled finding and fixing issues and building a speak-up culture.

Ante Lovric
Gas Program Manager, Senior Pacific Gas and Electric Co.

Matt Sanders
Manager, Gas Corrective Action Program Pacific Gas and Electric Co.

5:30 pm - 7:00 pm
Cocktail Hour - Exhibit Hall

Track B5

2:15 pm - 5:20 pm
Distribution Measurement/Customer Field Services

2:15 pm - 2:55 pm
ANSI B109.4 Self-Operated Natural Gas Service Regulator 2PSIG Outlet Pressure Revisions Overview
Recently, ANSI B109.4 was updated to accommodate natural gas service regulators with 2PSIG outlet pressures. This presentation will summarize those changes.

John R. Anderson
Regional Manager Emerson Process Management Regulator Technologies

Chris Wykle
Director, Gas Marketing Sensus

3:05 pm - 3:45 pm
Balancing Capital and O&M Cost (Meter Replacement vs. Repair)
This presentation will address the unique safety, reliability, regulatory, financial and political realities that complicate if, when and how the trade-off between capital and operational cost is made. Focus will be placed on balancing the capital and operational costs during meter repair versus replacement, looking at the decision from the perspectives of different stakeholders, including customers, utilities and regulators. Presenters also will discuss how this thought process can be leveraged elsewhere within the organization.

Stephen T. Wendorf
Measurement Engineer CenterPoint Energy

3:55 pm - 4:35 pm
Gas Meter Farms: New Tool for Managing AMI Meter Populations and Testing Continuously Evolving Communication Technology in a Post Deployment World
This presentation will focus on the design considerations of a new state-of-the-art gas meter farm developed in collaboration with PG&E and the uses anticipated in the business case for this installation. This installation will have residential meters, large diaphragm meters and rotary meters representing a cross section of the installed population. Protocols and test cases using the meter farm as a base line to test against and diagnose field issues will be presented as part of these design considerations.

Tom Lawton
The Eastern Specialty Co.

4:40 pm - 5:20 pm
Data Analytics for AMI/AMR

Kevin Carney
Technical Advisor Southern California Gas Co.

Joe M. Rose
Customer Services Field Staff Manager Southern California Gas Co.

5:30 pm - 7:00 pm
Cocktail Hour - Exhibit Hall
**Track B6**

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<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>2:15 pm - 5:20 pm</td>
<td>Gas Utility Management/Construction Operations</td>
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<tr>
<td>2:15 pm - 2:55 pm</td>
<td>Overview of Natural Gas Training Council</td>
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EriC KeleR P.E.
President
Natural Gas Training Council

**3:05 pm - 3:45 pm**
No-Stub Plastic Service Abandonment Method
Current construction methods to abandon plastic services traditionally leave behind short stubs that are easy targets for third-party damage. OTD evaluated and modified a construction method to abandon a plastic service, under no-blow conditions, that eliminates the need to leave a stub behind.

Michael Adamo
Project Manager
GTI - Gas Technology Institute

**3:55 pm - 4:35 pm**
Solutions to the Inspector Box of Chocolates
There is a need to improve the reliability and performance of pipeline and facility inspectors for new construction and maintenance work. The presenter will explore why this is important, what is being done and possible interventions, including identification, training, motivations and technologies.

Daniel E. Lorenz P.E.
President
Joe Knows Energy

**4:40 pm - 5:20 pm**
The Advantages of Pressure-Testing Electrofusion Saddle Tees Prior to Tapping
Polyethylene gas distribution mains are often connected to branches using electrofusion saddle tees. Various electrofusion proof-test configurations were subjected to finite element analysis. For a given pressure, proof-testing prior to tapping resulted in a significantly more rigorous integrity test because local fusion zone stresses were significantly higher. Coauthor: B. Davis, Exponent, Inc.

Richard W. Klopp
Principal Engineer
Exponent, Inc.

**5:30 pm - 7:00 pm**
Cocktail Hour - Exhibit Hall

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**Track B7**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>2:15 pm - 5:20 pm</td>
<td>Transmission Measurement</td>
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<tr>
<td>2:15 pm - 2:55 pm</td>
<td>Design of Natural Gas Fuel Conditioning System</td>
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This presentation will cover the design and construction of a natural gas fuel conditioning system, including inlet ESD valve, filter separators and/or coalescers, metering, gas heating, and pressure and flow regulation. The information will apply to city gate stations, fuel gas to power generation stations, etc.

Daniel J. Rudroff
Chief Operating Officer
WFMS, Inc.

**3:05 pm - 3:45 pm**
Resolving Gas USM Installation Effects Caused by Tees
This presentation will discuss results from a typical gas USM under controlled conditions at a calibration lab when tees are installed. Profile distortion often occurs, and this presentation will cover solutions as well as effects on accuracy, and include diagnostic data. Coauthor: R. Miller, Energy Transfer Co.

John Lansing
V.P. Global Operations
Colorado Engineering Experiment Station Inc.
3:55 pm - 4:35 pm
**Conversion of a Large-Scale Orifice Measurement Station to an Ultrasonic Measurement Station With Double Capacity**
A measurement station located in Emden, Germany, needed to double its capacity from standard 40 million m³/day to 80 million m³/day. This goal was achieved by replacing the orifice meters on 5 orifice metering lines with 2 USMs in series on each line. In addition, the flow control valves were replaced. Coauthors: Mr. Bjelland, Gassco Norway; Mr. Buss, Gassco Germany; Dr. Rainer Kramer, Physikalish Technische Bundesanstalt (PTB).

*Steinar Fosse*
The Norwegian Petroleum Directorate (NPD)

4:40 pm - 5:20 pm
**Direct Velocity Profile Measurement in Pulsating Natural Gas Flow With Implications for Ultrasonic Flow Metering**
The effects of induced pulsation between 5Hz and 45Hz on ultrasonic meters in elevated pressure natural gas are presented. Time-dependent flow profile measurements are directly measured using a traversing probe that consisted of a fast-response hot-wire sensor.

*Christopher Grant*
Research Engineer
Southwest Research Institute

5:30 pm - 7:00 pm
**Cocktail Hour - Exhibit Hall**

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**Track B8**

2:15 pm - 5:20 pm
**Workforce Development**

2:15 pm - 2:55 pm
**Consumers Energy Attracting Ex-Military Initiative**

*Speaker TBA*

3:05 pm - 3:45 pm
**Field Leader Development Program**
An overview of New Jersey Resources field leader development program which will promote growth and development, strengthen engagement and build a strong pipeline of talent for the future. This overview will include the different talent strategies considered in developing the program and desired outcomes.

*Kate Dowd*
Talent & Organizational Development Partner
New Jersey Resources

*Renee Kurowski Ph.D.*
Director, Talent & Organizational Development
New Jersey Resources

3:55 pm - 4:35 pm
**Gas Distribution Pipeline Mechanic Introduction Program of Southeastern PA**
Developed by the Collegiate Consortium for Workforce and Economic Development in partnership with PECO, PGW, and Gas Pipeline Contractors. This hands on program prepares students for entry-level employment in the natural gas industry, with the ultimate goal to meet the increased regional demand for skilled labor in the industry.

*Mark Andraka*
Sr. Engineer
PECO, An Exelon Co.

*Grant Gochenauer*
VP, Operations
Utility Line Services

4:40 pm - 5:20 pm
**DCA Workforce Committee Solutions in Action: Ohio (panel)**
The LDC’s biggest challenge is “Who Will Do the Work?” Learn how an industry collaboration of utility staff, contractors, and vendors formed a successful team that is attacking workforce development in central Ohio. Participants will obtain a simple playbook that describes how they can replicate the approach and successes in their home markets.

*Panelists TBA*

5:30 pm - 7:00 pm
**Cocktail Hour - Exhibit Hall**
### Track C1

**8:00 am - 9:35 am**

**Distribution & Transmission**

**Integrity Management**

**8:00 am - 8:45 am**

**RFID as an Infrastructure Asset Management Solution**

Preventing utility damage, complying with increased regulations and tracking assets are ongoing challenges facing infrastructure managers. This session describes how RFID technology can be integrated with GIS and mobile mapping technologies to reduce locating costs, support compliance requirements and improve management of critical infrastructure.

*Mike Klonsinski*

Executive Vice President
Berntsen International, Inc. (InfraMarker)

**8:50 am - 9:35 am**

**Presentation To Be Confirmed**

**9:35 am - 10:00 am**

**Break**

### Track C2

**8:00 am - 9:35 am**

**Field Operations/Gas Control**

**8:00 am - 8:45 am**

**OQ NPRM: What You Need to Know (panel)**

PHMSA’s new rule changes to pipeline operator qualification requirements – the “OQ Rule” – have far-reaching implications for energy and utility companies and contractors. Join us for an information-packed discussion and learn about the most significant changes outlined in the NPRM and when these changes go into effect.

**Panelists:**

*John Goetz*

Director, Operator Qualification & Compliance
Meade

*Tom Meek*

Director of Compliance
Veriforce

**8:50 am - 9:35 am**

**Panel cont’d**

**9:35 am - 10:00 am**

**Break**

### Track C3

**8:00 am - 9:35 am**

**Supplemental Gas**

**8:00 am - 8:45 am**

**LNG Liquefaction Replacement Projects for Peakshavers**

Some LNG peakshavers are reaching the end of their liquefaction lifecycle and are planning on liquefaction replacement projects. This presentation will discuss design considerations, siting requirements, liquefaction technology options, and potential regulatory/grandfathering impacts associated with liquefaction replacement projects.

*Phil Suter*

LNG Consultant
CH-IV International

*Alex Szerszen*

CH-IV International

**8:50 am - 9:35 am**

**Presentation To Be Confirmed**

**9:35 am - 10:00 am**

**Break**
**Breakout Sessions - Thursday, May 4**

**Track C4**

8:00 am - 9:35 am  
Safety

8:00 am - 8:45 am  
Supervisor/Leadership Safety Programs Training  
Front-line supervisors have a significant impact on employee safety performance. This topic will discuss understanding and implementing an effective supervisor safety training program to achieve safety excellence.

*Speaker TBA*

8:50 am - 9:35 am  
Leading Indicators  
Developing and selecting leading indicators can effectively help measure safety performance. Not all leading indicators can be used by all companies in the same manner. A discussion on how to select leading indicators that can help improve safety performance in your organization.

*Speaker TBA*

9:35 am - 10:00 am  
Break

**Track C5**

8:00 am - 9:35 am  
Customer Field Services

8:00 am - 8:45 am  
Automatic Gas Meter Shutoff Device  
Sensus, a gas meter supplier, will review and demonstrate a new automation product that can shut off gas supply at the meter resolving safety, flooding and non-payment issues. Manufacturer experts will review software and control devices for initiating and proving valve closure, security measures to prevent tampering and hacking, and industry standards for meeting valve design requirements.

*Mark Gunsalus*  
Mulcare Pipeline Solutions

*Scott Vigil*  
Director of Sales  
Mulcare Pipeline Solutions, Inc.

8:50 am - 9:35 am  
Best Practices in Emergency Response  
A detailed review of one utility’s emergency response best practices that has enabled them to be recognized by the AGA’s Best Practices Roundtable Committee twice in the past five years as one of the top ten gas utilities in AGA as it pertains to odor response.

*William A. Brandt*  
Director of Field Operations  
Central Hudson Gas & Electric Corp.

9:35 am - 10:00 am  
Break

**Track C6**

8:00 am - 9:35 am  
Environmental Management

8:00 am - 8:45 am  
Case Study: NW Natural's North Mist Expansion Project  
Case study on the successful navigation of Oregon's Energy Facility Siting Council process for the expansion of the Mist Underground Storage Field, which included the construction of new wells, compressor station and pipeline to serve a new power generation facility in northwest Oregon designed to supplement renewable energy.

*Andrew Bauer*  
Environmental Consultant  
NW Natural

*Brian Ranney*  
Senior Engineering Geologist  
GeoEngineers Inc.

8:50 am - 9:35 am  
What to Expect When You're Not Expecting ... PCBs: Lessons Learned From Recent Gas Industry Experience  
This presentation outlines the various issues that need to be addressed when PCBs are first discovered or re-discovered in a company's natural gas system after years of being PCB-free. Various strategies and tactics for addressing these issues will be discussed based upon recent field experience in the industry.

*John Woodyard*  
Consultant  
John P. Woodyard, PE

9:35 am - 10:00 am  
Break
Breakout Sessions - Thursday, May 4

Track C7
8:00 am - 9:35 am
Transmission Measurement

8:00 am - 8:45 am
A Novel Approach for Natural Gas Phase Behavior In-Situ Measurement Under Downhole and Transmission Conditions
This approach and device can be used to carry out the PVT parameters real time and in-situ measurement, which include compressibility, critical point, and so on. It can be installed in wellbore or along gas pipeline. It also was a sampling tool for laboratory analysis.

Zengmin Lun
State Key Laboratory of Shale Oil and Gas Enrichment Mechanisms and Effective Development

8:50 am - 9:35 am
Fluid Phase Equilbria Using GERG-2008 Equation of State
The presentation will show the complicated fluid phase behavior that can be calculated using the GERG-2008 equation of state for natural gas mixtures. Multiple phases (for example, two liquids and vapor in equilibrium) are often unexpected and can affect natural gas operations.

Andrew Laughton
Principal Scientist
DNV GL (Oil and Gas UK)

9:35 am - 10:00 am
Break

Track C8
8:00 am - 9:35 am
Workforce Development

8:00 am - 8:45 am
PG&E’s Power Pathway Program

Lisa Hurley
Chief of Staff, Office of the President, Gas Pacific Gas and Electric Co.

8:50 am - 9:35 am
Natural Gas Utility and Pipeline Careers in Appalachia
The Gas Technology Institute, along with its partner Washington Greene County Job Training Agency, received an award from the Appalachian Regional Commission (ARC) to fund its NATURAL GAS UTILITY & PIPELINE FIELD SKILLS TRAINING PROGRAM – This Pre-Employment Program includes 156 hours (4 weeks) of blended classroom and hands-on training that improves employability for 100 students by providing a basic understanding and awareness of natural gas, the natural gas utility and pipeline industry, associated equipment, procedures, and operations. GTI will present on the scope, implementation and impact of the program that includes a total investment exceeding $1 million and will be implemented by a broad team of over 20 organizations.

Patrick Findle
Business Development
Gas Technology Institute - GTI

9:35 am - 10:00 am
Break

Track D1
10:00 am - 11:35 am
Distribution & Transmission Integrity Management

10:00 am - 10:45 am
Pipeline Risk Assessment - How Much Data Do I Need?
A growing movement in the industry from index to probabilistic risk modeling leads to questions: How much data do I need? How do I handle data uncertainties or missing data? A framework for probabilistic risk modeling can be implemented with existing data (and uncertainties) and evolve with expanding data. Coauthor: William Luff, JANA Corp.

Ken Oliphant
Executive Vice President
JANA Corp.

10:50 am - 11:35 am
Engineering Critical Assessment: One Tool in the MAOP Toolbox
The Safety of Gas Transmission & Gathering Lines Final Rule will require MAOP verification using one of several methods. This presentation will relate the proposed ECA to fundamental engineering concepts behind establishment of MAOP. Possible implementations of ECA requirements will be explored. The importance of choosing the correct application for ECA will be stressed and examples provided.

Steve Biles
Senior Consultant
Structural Integrity Associates, Inc.

Bruce L. Paskett
Chief Regulatory Engineer
Structural Integrity Associates, Inc.

11:35 am - 12:45 pm
AGA Leadership Luncheon
Track D2

10:00 am - 11:35 am
Field Operations

10:00 am - 10:45 am
Reducing the Risk of Vehicular, Snow and Ice Damage to Gas Meters
Enhance gas system safety – a breakaway shut-off fitting for meter sets and other above-ground gas facilities is being developed and tested. The presentation will highlight how this fitting may reduce the risk of leaks, fire, property damage and injury caused by vehicular or snow/ice impact by automatically stopping the escape of gas to the environment.

**Dennis R. Jarnecke**
R&D Director
GTI - Gas Technology Institute

**David Smith**
Natural Gas Distribution Engineer
Avista Corp.

10:50 am - 11:35 am
Building a Legacy Cross Bore Risk Model
NiSource and Opvantek created a risk model for legacy cross bores. NiSource began using the model in 2016 to guide the legacy cross bore inspection program in its Ohio service territory. This presentation will explain how the model was developed, how it works and assess its initial effectiveness.

**Tony Sileo**
Vice President, Sales & Product Management
Opvantek, Inc.

**Scott Tustin**
Pipeline Safety & Compliance Project Specialist II
NiSource Inc.

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Track D3

10:00 am - 11:35 am
Plastic Materials/Corrosion Control

10:00 am - 10:45 am
Improving Data Quality by Developing a Barcode Tagging Strategy
Equipment tags are the cornerstone of asset management programs, enabling better decision making, more accurate data collection and 100 percent data integrity for inventory, work orders and predictive maintenance. The purpose of this presentation is to develop a marking policy and strategy, guiding managers through the management of the tagging process.

**Alan Cunningham**
Director of Services
Camcode

10:50 am - 11:35 am
Inspection of Cracks Using Helical Field EMAT in Time and Frequency Domain
This presentation will demonstrate the capability of helical field Electromagnetic Acoustic Transducer (EMAT) to detect and size cracks, as validated by Nondestructive Examination (NDE). EMAT-reflected and attenuated shear horizontal waves were analyzed to detect the anomalies both in time and frequency domain. Signal processing algorithms were developed to detect and identify the anomalies. Coauthor: R. Meyers, T.D. Williamson, Inc.

**Shanker Shrestha Ph.D.**
Systems Engineer, ILI Systems
T.D. Williamson, Inc.

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Track D4

10:00 am - 11:35 am
Safety

10:00 am - 10:45 am
Changing Your Safety Culture to Prevent Accidents and Injuries
Ninety percent of accidents and injuries are caused by human mistakes and distraction. During this presentation, learn what it takes to change unsafe attitudes and behaviors.

**Don Theune**
Principal and Co-Founder
DONNIC CONSULTING GROUP, LLC

10:50 am - 11:35 am
Human Performance and Its Role in Operational and Safety Excellence
Humans by definition are fallible. Studies indicate the likelihood of a serious event being linked to an error in human performance is 95 percent versus 5 percent due to equipment failure. This program is designed to raise awareness of those behaviors that put our employees and the public at risk and actions to eliminate human performance errors.

**Bruce Bolger**
Owner and Principal Consultant
Bruce Bolger Co.

11:35 am - 12:45 pm
AGA Leadership Luncheon
Track D5

10:00 am - 11:35 am
Customer Field Services

10:00 am - 10:45 am
Expanding Natural Gas Service to Multi-Family Buildings

This presentation will provide an overview of a recent study developed by the American Gas Foundation to assess the regulatory and policy barriers to providing natural gas service to multi-family structures, and presents solutions used to help bring the benefits of natural gas to the owners and occupants of these buildings.

Rick Murphy
Managing Director, Sustainable Growth
American Gas Association

10:50 am - 11:35 am
Protecting Utility Workers From Stray Current on Gas Meter Sets

Nicole Ash-Colby
Senior Safety Specialist
Unitil Corp.

11:35 am - 12:45 pm
AGA Leadership Luncheon

Track D6

10:00 am - 11:35 am
Environmental Management

10:00 am - 10:45 am
Quantifying Methane Emissions and Prioritizing Leak Repairs

Quantifying methane emissions from utilities has become an environmental priority and key to developing plans to reduce emissions. GTI has developed national and state emission factors for various sources of methane emissions within utility systems. Using this information will allow for prioritization of leak repairs to optimize methane emissions reduction.

Kristine Wiley
Senior Scientist
GTI - Gas Technology Institute

10:50 am - 11:35 am
Perspectives on Emerging Federal Guidance on Mitigation

Presentation will provide perspectives on emerging federal guidance on mitigation and how these changes may affect natural gas distribution/transmission companies going forward. Selzer will discuss how The Conservation Fund has worked with dozens of companies, including many in the gas industry, to protect more than 200,000 acres through targeted mitigation.

Lawrence Selzer
President and CEO
The Conservation Fund

11:35 am - 12:45 pm
AGA Leadership Luncheon

Track D7

10:00 am - 11:35 am
Transmission Measurement/Supplemental Gas

10:00 am - 10:45 am
USA Trends of LNG Supply Chain and Custody Transfer Measurement

This presentation seeks to identify and discuss the supply chain of liquefied natural gas within the United States, including the development of new and presence of existing national infrastructure supporting it and trends regarding measurement.

Thomas G. Quine
President
Northstar Industries, LLC

10:50 am - 11:35 am
Simple and Accurate Equation for the Calculation of LNG Density

Current methods for the calculation of LNG density from composition (and temperature) will be discussed, including the GERG-2008 equation of state. A simple, and accurate, method is proposed that can easily be implemented in any field instrumentation.

Andrew Laughton
Principal Scientist
DNV GL (Oil and Gas UK)

11:35 am - 12:45 pm
AGA Leadership Luncheon
10:00 am - 11:35 am
Gas Utility Management

10:00 am - 10:45 am
Presentation To Be Confirmed

10:50 am - 11:35 am
2017 AGA Odorization Manual: Revision Highlights

The revised AGA Odorization Manual was published in March 2017 and includes substantive changes and additions to the 2000 edition of the manual. This presentation will highlight enhancements in the 2017 edition, and topics will include; expanded information for odorization system design, recent research findings on odor fade and masking, pipeline conditioning, safety and environmental aspects, and operator training.

Rosemarie Halchuk P.E.
Consulting Gas Quality Engineer
Xcel Energy Inc.

11:35 am - 12:45 pm
AGA Leadership Luncheon

Track E1
1:00 pm - 3:25 pm
Transmission Integrity Management/Engineering

1:00 pm - 1:45 pm
New Tool for Pipe Upgrade

Markus Ginten
Area Manager
ROSEN USA

1:50 pm - 2:35 pm
Research Results to Support Key Requirements of PHMSA’s Integrity Verification Process (IVP)

Daniel A. Ersoy
Executive Director, Infrastructure
GTI - Gas Technology Institute

Michael D. Kern
Director, Transmission Engineering
National Grid

2:40 pm - 3:25 pm
MAOP Validation at Southern Company Gas

MAOP validation efforts will illuminate some issues. To ensure these issues are optimally handled, a robust program structure must be put in place before the work begins. In addition, the organization must be prepared for the outcomes the program will deliver. This presentation describes the Southern Company Gas program.

Brad Beckman
Manager
Southern Co. Gas
### Track E2

**1:00 pm - 3:25 pm**  
**Construction Operations**

**1:00 pm - 1:45 pm**  
**Operator Qualification**  
**Portability for Contractors**

*Speaker TBA*

**1:50 pm - 2:35 pm**  
**Gas Leak Investigation**  
**Training Without a Leak Field**

New York State Electric & Gas and SENSIT Technologies pioneered development of a "gasless" training simulator for first-response teams. Trainers create scenarios using a tablet and paired gas detector through wireless communication. The tablet lists elements of leak investigation training and a proficiency exam that becomes a permanent employee training record.

*Joseph Chernak*  
New York State Electric & Gas Corp.

*Scott A. Kranstuber*  
Vice President, Sales and Marketing  
SENSIT Technologies

**2:40 pm - 3:25 pm**  
**Presentation To Be Confirmed**

**3:25 pm - 3:45 pm**  
**Break**

### Track E3

**1:00 pm - 3:25 pm**  
**Corrosion Control**

**1:00 pm - 1:45 pm**  
**Ultrasonic Coupons to Determine External Corrosion Rates**

This presentation will cover field study of a new technology utilizing ultrasonic thickness (UT) measurement for external corrosion coupons. Advantages of technology for monitoring AC and DC corrosion rates in conjunction with pipe-to-soil potentials will be discussed.

*Jim Warner*  
Corrosion Control Lead  
Consumers Energy Co.

**2:40 pm - 3:25 pm**  
**Remote Monitoring for CP Compliance and Integrity Management**

Vendor-neutral presentation on application of remote monitoring for cathodic protection compliance reporting and pipeline integrity management. Covers CP monitoring, AC interference, GPS interruption, etc. with a focus on data accuracy, timeliness and maximizing "high value" use of field personnel.

*Jamey Hilleary*  
Director of M2M Technology  
Elecsys Corp.

**3:25 pm - 3:45 pm**  
**Break**
Track E4
1:00 pm - 3:25 pm
Field Operations/Plastic Materials

1:00 pm - 1:45 pm
Intrinsically Locatable PE Pipe
Inaccurate pipe location increases the risks of third-party damage. Unlocatable gas pipes are a serious concern to utilities as well as to excavators. The development of intrinsically locatable PE pipe has great potential to reduce third-party damage, and correspondingly reduced gas emissions and increased safety for construction workers and the general public. Coauthor: D. Jarnecke, GTI - Gas Technology Institute.

Ed Scott
Business Development Manager
3M

1:50 pm - 2:35 pm
Live, Permanent Repair of PE Pipes Using Electrofusion Repair Sleeves
NYSEARCH/NGA and GECO/NUPI have partnered to develop electrofusion repair sleeves for the permanent and live repair of PE pipe with damages ranging from 10 percent to 50 percent of wall thickness. This presentation will describe ongoing development programs for 2", 8" and 12" pipes that add to other sizes that are already commercially available. Coauthor: C. Ziu, NUPI Americas.

Daphne D’Zurko
Executive Director, NYSEARCH | VP, RD&D
Northeast Gas Association

2:40 pm - 3:25 pm
Materials and Field Data Collection for Distribution
Pending regulation will require operators to collect and maintain detailed attribute and location data for plastic materials and joints. How are companies approaching the pending materials tracking and traceability requirements? What equipment and skills will your company need to comply? This presentation will review materials and field data collection for distribution.

Alice Burns
Director of Client Services
Celerity Consulting Group, Inc.

3:25 pm - 3:45 pm
Break

Track E5
1:00 pm - 3:25 pm
Underground Storage

1:00 pm - 1:45 pm
The Application of Risk Assessment for Underground Storage
This session will include presentations on risk followed by a panel discussion on risk and complying with API RP 1170 and API RP 1171.

Gord Cowan
UGM Engineering

Stephen F. Nowaczewski
Director, Engineering Governance & Process Safety
TransCanada Corp.

Steve Pardy
Manager, Underground Storage
Union Gas Limited

1:50 pm - 2:35 pm
The Application of Risk Assessment for Underground Storage (cont’d)

2:40 pm - 3:25 pm
Rig-less Defect and Corrosion Measurement of Multiple Concentric Pipe Strings
This presentation will review traditional and the newest Quad-Electro-Magnetic Pulse technology and methodology. In addition, it will showcase downhole data from gas storage to production wellbores, including a comparison between traditional “direct” casing inspection technologies and Empire’s.

Rick Porras
US Land Sr. Technical Sales Consultant
Empire Special Services

3:25 pm - 3:45 pm
Break
Breakout Sessions - Thursday, May 4

Track E6
1:00 pm - 3:25 pm
Environmental Management

1:00 pm - 1:45 pm
More Accurately Acquire, Maintain and Report Leak Data
Learn about types of issues encountered in validating legacy leak data and how to prevent these issues by utilizing new techniques and solutions. View a demonstration of an advanced leak investigation application that both manages the inspection schedule and compiles a leak investigation record complete with auto-grading and mapped barhole readings.

Alice Burns
Director of Client Services
Celerity Consulting Group, Inc.

1:50 pm - 2:35 pm
Residential Methane Detectors - Pilot Study
Residential methane detectors can warn customers of increased levels of methane so immediate action can be taken to alert utilities or public safety officials of a potential leak. Con Edison is participating in a program through OTD to evaluate and pilot commercially available detectors in the lab and actual residential homes. Coauthor: K. Wiley, GTI - Gas Technology Institute.

Richard Trieste
Department Manager, Research & Development
Consolidated Edison Co. of New York, Inc.

2:40 pm - 3:25 pm
Presentation To Be Confirmed

Track E7
1:00 pm - 3:25 pm
Transmission Measurement

1:00 pm - 1:45 pm
Overview of Gas Odorization Technologies
Gas odorization is a safety issue. Three main technologies are used all over the world. ENGIE Lab CRIGEN has developed a new, patented odorization technology based on gas odorant nebulization. Presenters will discuss the results of laboratory tests that have determined the technical performances of this new offering. Coauthors: C. Tastard, E. Albertini, J. Guillet and L. Gorintin - ENGIE Lab.

Amelie LOUVAT
Project Manager
ENGIE Lab

1:50 pm - 2:35 pm
IIOT: Is a Digital Twin a Real Paradigm Shift for Operational Metering?
The industrial internet of things has the potential to advance with "digital twins" in bringing about a paradigm shift. Of key importance is: (1) achieving and maintaining cybersecurity; (2) taking validation to the next level to arrive at real-time metering uncertainty, and (3) catering to a mobile workforce.

Martin Bragg
Chief Technology Officer
Honeywell Inc.

2:40 pm - 3:25 pm
What a Gas Measurement Technician Needs to Know to Succeed
This presentation will describe the knowledge and proficiency level required of a competent gas measurement technician. The discussion will be focused on the transmission measurement technician, who is often called on to do many tasks. The presenter will draw upon his experience in gas measurement over the past 36 years and describe how the technician role has changed as metering technologies have evolved.

James Witte
Staff Engineer
Southwest Research Institute

3:25 pm - 3:45 pm
Break
Breakout Sessions - Thursday, May 4

Track E8
1:00 pm - 3:25 pm
Safety Culture Workshop (Start time 1:50 p.m.)

1:50 pm - 3:25 pm
Richard Hawk
Make Safety Fun

Track F1
3:45 pm - 5:20 pm
Engineering/Transmission Integrity Management

3:45 pm - 4:30 pm
Experimentally Determined Exclusion Radii for Pneumatic Pipeline Pressure Tests
This presentation will describe a model for determining exclusion radii around above- and below-ground pneumatic pressure tests. Full-scale experimental tests were conducted to provide the data used to create this mathematical model. Videos, pictures and other details of the experimental tests will be discussed.

Nicole Cleveland
Engineer, Strength Test Engineering
Pacific Gas and Electric Co.

Adam Steiner
Senior Engineer I, Fitness for Service
Kiefner and Associates

4:35 pm - 5:20 pm
MAOP Verification Requirements Under the Proposed § 192.624
Under the proposed 49 CFR Part 192.624, there are six potential methods to establishing MAOP. Only two – pressure reduction-based on historical actual operating pressure (HAOP) and engineering critical assessment (ECA) – are realistic possibilities in the brave new world of traceable, verifiable and complete. HAOP and ECA will be discussed in detail.

John Jacobi
Vice President
G2 Integrated Solutions

Track F2
3:45 pm - 5:20 pm
Gas Utility Management

3:45 pm - 4:30 pm
Low Pressure Adsorbed Natural Gas (ANG) Hybrid Bi-Fuel Vehicles
Adsorbed natural gas (ANG) technology densely stores natural gas at significantly lower pressures compared with compressed natural gas (CNG). ANG enables low pressure, “time-fill” private refueling, making natural gas a more economical hybrid vehicle fuel compared with CNG and battery electric traction drive systems (ETDS) used in hybrid electric vehicles.
Coauthors: Dr. Ellen Sun, United Technologies Research Center; Dr. Billy-Paul Holbrook, Ingevity Corp; Bradley W. Reed, Ingevity Corp.

Robert A. Bonelli
President and CEO
Adsorbed Natural Gas Products, Inc.

4:35 pm - 5:20 pm
Gold Shovel Standard: Experiences, Results and Futures
Gold Shovel is a novel, ambitious program to measure how carefully a contractor excavates, used to dramatically reduce damage to buried networks. Architected by PG&E, and pioneered by Xcel, Con Edison, Kinder Morgan, Dominion and PG&E, the session will cover experiences enrolling vendors, results and future program direction.

Robert Boyle
Vice President
Consolidated Edison Co. of New York, Inc.

John Higgins
Vice President
Pacific Gas and Electric Co.

Luke Litteken
Area Vice President
Xcel Energy Inc.
Corrosion Control

Track F3

3:45 pm - 5:20 pm
Pipeline Coatings: Lessons Learned

Wally Armstrong
Partner
Liberty Sales & Distribution, LLC

4:35 pm - 5:20 pm
Susceptibility of Natural Gas Pipelines to Stress Corrosion Cracking

Stress corrosion cracking (SCC) can pose a serious risk to transmission natural gas operators, as it can be insidious in nature and progress undetected for many years. Selected leading indicators can be leveraged to understand risk to SCC including pipe age, coating type, temperature, and internal gas pressure. However, other contributing factors to SCC are much harder to understand which include circumferential bending stresses, residual stress from third party or other mechanical damage, and coating disbondment (as well as general coating condition). This presentation will review the basics of SCC, selected SCC case studies, the specific contributing factors in each situation, and possible prevention measures.

Yash Bhargava Ph.D., P.E.
Senior Managing Scientist
Exponent, Inc.

Alex Hudgins Ph.D.
Senior Managing Engineer
Exponent, Inc.

Distribution Integrity Management/Plastic Materials

Track F4

3:45 pm - 5:20 pm
Gas Quality Impact on Elastomers and Components of Natural Gas Infrastructure

Dr. George Vradis
Senior Program/Technology Manager
NYSEARCH/Northeast Gas Association

4:35 pm - 5:20 pm
How Slow Can It Go With the Acceptance and Use of Lining Technology?

This presentation will examine why the use of cured-in-place lining (CIPL) as a trenchless renewal technique is still in its infancy and will review concepts that the presenter believes will ultimately lead to expanded usage in natural gas applications.

George Ragula
Distribution Technology Manager
Public Service Electric and Gas Co.

Underground Storage

Track F5

3:45 pm - 5:20 pm
Underground Gas Storage Isolation Solutions

Construction and isolation of underground gas storage wells requires precise planning, design and execution of operations to ensure the development of a dependable barrier that maximizes the investment of the well operator as well as minimizes the risk of future failures or remediation of the wellbore. This presentation will educate attendees on the science and technology behind constructing the long-term, dependable barrier needed to maximize an investment in underground storage construction. It will also cover case study solutions tailored to specific wellbore conditions and parameters.

Brett Williams
Cement Technical Advisor
Halliburton

4:35 pm - 5:20 pm
Cavern Boundary Sheer Zones

Kurt Looff
Manager of Geology and Geophysics
GEOSTOCK
Breakout Sessions - Thursday, May 4

**Track F6**

3:45 pm - 5:20 pm
Quality Management/Pipeline Safety

3:45 pm - 4:30 pm
Compliance Management

*Vincent Spadafora*
Director
ENERGY worldnet, Inc.

**4:35 pm - 5:20 pm**
GPTC – Meeting the Challenge of Changing Regulations and Technology
Did you know GPTC has been providing guidance since the first DOT gas pipeline regulations were created? Learn about the Gas Piping Technology Committee (GPTC) and our accredited ANSI Standard - ANSI GPTC Z380.1 “Guide for Gas Transmission, Distribution, and Gathering Piping Systems”. Including who we are; how we develop new and revised material; how we reach consensus; and how you can get involved.

*Leticia Quezada*
Director, Compliance and Quality Assurance
Southern Company Gas

**Track F7**

3:45 pm - 5:20 pm
Transmission Measurement

3:45 pm - 4:30 pm
Hydrogen Impact on Power Metering and on the Calorific Value

Power-to-gas is an interesting solution to improving renewable energies. The key is the impact of hydrogen on power metering and precisely on the calorific value. ENGIE Lab CRIGEN has performed experimental tests to evaluate this impact on calorific value using a calorimeter and GC.
Coauthors: Fares Ben Rayana, Ony Rabetsimamanga, Christophe Tastard and Yann Courtois - ENGIE LAB.

*Alice Vatin*
Research Engineer
ENGIE LAB

**4:35 pm - 5:20 pm**
Calibration Options for Natural Gas with Coriolis Meters
Calibration of coriolis meters as described in AGA 11 offers the flexibility to use alternative fluids like water. Some coriolis meters also offer the option for applying linearization based on gas calibration data. A comparison of liquid, gas, and linearized gas calibration data that reveals a path to an informed decision will be discussed.

*Marc Buttler*
Director, Midstream Oil and Gas Marketing
Emerson Automation Solutions – Micro Motion

**Track F8**

3:45 pm - 5:20 pm
Safety Culture Workshop (cont'd)

3:45 pm - 5:20 pm
Richard Hawk
Make Safety Fun
Breakout Sessions - Friday, May 5

Track G1
8:00 am - 10:25 am
Quality Management

8:00 am - 8:45 am
Excess Flow Valve Rulemaking Implementation at Dominion East Ohio Gas
This presentation will speak to how Dominion intends to implement the new DOT EFV Final Rulemaking. The issues that will be discussed include, installation standards for EFVs on multi-family residences and small commercial customers with known customer loads not exceeding 1,000 SCFH per service. In addition we will talk about notification to customers and the use of curb valves and associated inspections for services exceeding 1,000 scfh.

Brian Moidel
Principal Engineer
Dominion East Ohio

8:50 am - 9:35 am
Operator Qualification vs. Training
Speaker TBA

9:40 am - 10:25 am
Presentation To Be Confirmed

Track G2
8:00 am - 10:25 am
Engineering

8:00 am - 8:45 am
A Cost-Effective Approach for Mitigating Gas Cross Bore Risk
A primary challenge in any cross bore safety program is balancing budget with risk. This presentation will introduce solutions for optimizing that balance: prioritizing inspections and eliminating them where feasible, verifying completion, assuring quality and facilitating records retrieval efficiently through a single GIS interface.

Kevin Ernst
Manager of Crossbore Services
G2 Integrated Solutions

8:50 am - 9:35 am
Forecasting the Future: Cost Modeling Multi-Year Programs
Forecasting for any multi-year program with several unknowns can be a daunting task. This presentation focuses on the primary differences between forecasting and estimating. The presentation also touches on the basics of forecast model setup and data collection for increased forecast accuracy and program success.

Matt Lind
Project Manager of System Planning
Burns & McDonnell

Amanda Palm
Pipeline Engineer
Burns & McDonnell

9:40 am - 10:25 am
Assessment of MAOP Validation and the NPRM
The Safety of Gas Transmission & Gathering Lines NPRM has introduced some new requirements to the MAOP validation process. An in-depth review of material assumptions, support documents and grading scales should be performed to determine how previous MAOP efforts compare with the new proposals and determine if additional work is needed to comply with the new rules.

Michael Berg
Director of Technical Services
RCP Inc.
Breakout Sessions - Friday, May 5

Track G3
8:00 am - 10:25 am
Corrosion Control/Field Operations

8:00 am - 8:45 am
A Practical Approach to Prioritizing Resources Based on the Likelihood of Corrosion in Gas Storage and Gathering Systems
Operation managers are under increasing pressure to maintain availability while continually optimizing costs throughout the life cycle of an asset. This presentation will discuss a methodology for ranking segments by identification of corrosion mechanisms in gas storage and gathering systems.

Bruce Cookingham
Senior Principal Consultant
DNV-GL

8:50 am - 9:35 am
Educating Stakeholders Where They Are
SCANA Services will discuss how they are transitioning their public awareness messaging for SCE&G and PSNC Energy by speaking to audiences through a variety of communication platforms in order to create awareness, engagement and understanding.

Gus Chapman
Manager-Distribution Engineering Services
SCANA Corp.

9:40 am - 10:25 am
Presentation To Be Confirmed

Track G4
8:00 am - 10:25 am
Transmission Integrity Management

8:00 am - 8:45 am
Material Verification for Gas Transmission Pipelines: The Time to Start Is Now
This presentation will provide an overview of material verification for gas transmission pipelines, including fracture mechanics evaluation, flaw assessment and MAOP verification. The presenters will offer suggested program structures, which would expand to the full Material Verification Program when the Safety of Gas Transmission Pipelines Rule is finalized.

Steve Biles
Senior Consultant
Structural Integrity Associates, Inc.

Bruce L. Paskett
Chief Regulatory Engineer
Structural Integrity Associates, Inc.

National Grid and CHA Consulting Inc. will co-present on the methodology, gap analysis and overall success of understanding the integrity of National Grid’s gas transmission and high pressure distribution systems. CHA has been working with National Grid for five years, reviewing available material for every pipeline in its system.

Stephen Altbacker
Engineer Manager - IVP
National Grid

Gary W. Panebianco
Associate Vice President & Gas Technical Leader
CHA Consulting, Inc.

9:40 am - 10:25 am
One Utility’s Methodology of Identifying What They Knew and Didn’t Know About Their Pipelines' Integrity

Christine Cowsert
Senior Director, Asset Knowledge & Integrity Management
Pacific Gas and Electric Co.

Farshad Miraftab
Senior Risk Analyst
Pacific Gas and Electric Co.
Breakout Sessions - Friday, May 5

Track G5
8:00 am - 10:25 am
Underground Storage

8:00 am - 8:45 am
Combining CP System and Pressure Monitoring at Gas Storage Fields Using Wireless Networked Systems
Use of exception-based remote monitoring systems to monitor pressure, cathodic protection and internal corrosion rate in gas storage well fields will be discussed. This vendor-neutral case study will detail how the application of low-cost remote monitoring can provide data for compliance and integrity management for gas storage wells and the interconnected piping.

Jamey Hilleary
Director of M2M Technology
Elecsys Corp.

8:50 am - 9:35 am
Combining Two-Phase Flow and Geomechanical Models to Solve Problems in Underground Gas Storage
Gas propagation and geomechanical responses were modeled in caprock, with increased gas storage pressures. This presentation will review how at one site, field data from a deep borehole provided indirect observations of the geomechanical response of the caprock and at another site, open boreholes intersecting caprock allowed gas flow to shallower units, impacting the fracture gradient. Coauthors: O. Nasir, N. Calder, S. Gains, J. Avis - Geofirma.

Robert Walsh
Senior Numerical Modeller
Geofirma Engineering Ltd.

9:40 am - 10:25 am
Underground Natural Gas Storage Risk Assessment Process - An Implementation Tool for API RP 1171
API RP 1171 provides guidance on managing functional integrity of natural gas storage assets in depleted oil, gas and aquifer reservoirs. A risk assessment process has been developed to identify gaps in operating/maintenance practices, assess risks, identify preventive/mitigation steps to reduce risk, determine necessary corrective actions and track asset integrity.

Richard Gentges
Executive Consultant
RCP, Inc.