OPERATIONS CONFERENCE
& BIENNIAL EXHIBITION

Safety & Operational Excellence – Across the Globe!

MAY 19-22, 2015
GAYLORD TEXAN HOTEL
& CONVENTION CENTER
GRAPEVINE, TEXAS

CONFERENCE PROGRAM
Schedule at a Glance

Sunday, May 17, 2015

11:00 am - 1:00 pm  Volunteer Activity - Bikes for Goodness Sake Foundation (building bikes for underprivileged children)
1:30 pm - 4:30 pm  Steering Groups Planning Meeting - current and past committee officers (AGA members or by invitation only)
4:00 pm - 7:00 pm  Registration
6:30 pm - 7:30 pm  Networking Reception (AGA members or by invitation only)

Monday, May 18, 2015

7:00 am - 8:00 am  Continental Breakfast
7:00 am - 7:00 pm  Registration
8:00 am - 5:00 pm  Pre-conference spring committee meetings (AGA members or by invitation only)
12:00 pm - 1:00 pm  Committee Lunch
5:15 pm - 6:15 pm  Optional Activity - AGA Annual Operations Fun Run/Jog/Walk
6:30 pm - 7:30 pm  Networking Reception (AGA members or by invitation only)

Tuesday, May 19, 2015

7:00 am - 8:30 pm  Registration
8:00 am - 5:00 pm  Pre-conference spring committee meetings (AGA members or 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 award winners; by invitation only)
5:45 pm - 8:45 pm  Grand Opening Reception (Exhibit Hall)

Wednesday, May 20, 2015

7:00 am - 8:00 am  Continental Breakfast
7:00 am - 7:00 pm  Registration
8:00 am - 9:30 am  General Session
9:30 am - 11:15 am  Beverage Service
9:50 am - 11:25 am  Track A
  Track A1: Gas Utility Management
**Wednesday, May 20, 2015**

- Track A2: Safety/Field Operations
- Track A3: Distribution Measurement & Regulation
- Track A4: Transmission Measurement
- Track A5: Corrosion
- Track A6: Transmission Pipeline Operations
- Track A7: Gas Control

11:00 am - 5:30 pm  Customer Appreciation Day - Exhibit Hall (open to all conference registrants & invited guests)
11:30 am - 2:00 pm   Buffet Lunch (Exhibit Hall)
2:00 pm - 5:30 pm    Beverage Service

**Track B**

2:00 pm - 5:30 pm

- Track B1: Safety/Gas Utility Management
- Track B2: Plastic Materials
- Track B3: Distribution Measurement & Regulation/ Engineering
- Track B4: Transmission Measurement
- Track B5: Corrosion/Construction & Maintenance/Field Operations
- Track B6: Supplemental Gas
- Track B7: Gas Control/ Safety/Transmission Pipeline Operations

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

**Thursday, May 21, 2015**

7:00 am - 5:00 pm  Registration
7:30 am - 8:30 am  Continental Breakfast
8:00 am - 9:40 am  **Track C**

- Track C1: Plastic Materials
- Track C2: Construction & Maintenance/Field Operations
- Track C3: Distribution Measurement & Regulation/ Corrosion/Engineering
Schedule at a Glance

Thursday, May 21, 2015

Track C4: Transmission Measurement
Track C5: Safety/Engineering
Track C6: Gas Control
Track C7: Supplemental Gas

8:30 am - 11:30 am  Beverage Service

9:40 am - 10:00 am  Break

10:00 am - 11:40 am  **Track D**
Track D1: Corrosion
Track D2: Field Operations
Track D3: Distribution Measurement & Regulation/ Engineering
Track D4: Transmission Measurement
Track D5: Safety
Track D6: Gas Control/Gas Utility Management
Track D7: Supplemental Gas/Underground Storage

11:40 am - 12:50 pm  AGA Leadership Lunch (all registrants invited)

12:45 pm - 5:30 pm  Beverage Service

1:00 pm - 3:20 pm  **Track E**
Track E1: Plastic Materials/ Environmental Management
Track E2: Construction & Maintenance/Field Operations
Track E3: Distribution Measurement & Regulation/Field Operations
Track E4: Transmission Measurement/Supplemental Gas
Track E5: Safety
Track E6: Corrosion/ Engineering/ Transmission Pipeline Operations
Track E7: Underground Storage

3:20 pm - 3:50 pm  Break
Schedule at a Glance

Thursday, May 21, 2015

3:50 pm - 5:30 pm  **Track F**
- Track F1: Environmental Management
- Track F2: Underground Storage
- Track F3: Field Operations
- Track F4: Transmission Measurement
- Track F5: Safety
- Track F6: Transmission Pipeline Operations/Gas Utility Management
- Track F7: Construction & Maintenance/Engineering

Friday, May 22, 2015

7:00 am - 8:00 am  Continental Breakfast

7:15 am - 7:50 am  AGA – Your Information Resource

8:00 am - 10:30 am  Beverage Service

8:00 am - 10:25 am  **Track G**
- Track G1: Environmental Management
- Track G2: Engineering/Construction & Maintenance/ Transmission Pipeline Operations
- Track G3: Engineering/Field Operations/ Construction & Maintenance
- Track G4: Transmission Measurement
- Track G5: Construction & Maintenance
- Track G6: Gas Utility Management/ Construction & Maintenance/ Gas Control
Program - Wednesday, May 20

**General Session**

8:00 am - 9:30 am  
**General Session**

- Welcome, Introductions & AGA Antitrust Compliance Guidelines Review

- Host Utility Welcome

- AGA Chairman Remarks

- General Session Sponsor Recognition

9:50 am - 11:25 am  
**Track A1**

**9:50 am - 10:35 am**  
**Advancements in Supplier Quality Assurance Programs**

Presiding: Gary Hebbeler  
*General Manager, Gas Field & Systems Operations*  
*Duke Energy Corp.*

In an effort to achieve a world-class, quality-focused organization, a comprehensive study of PG&E’s quality management system has led to a step change in their supplier quality programs for procured material. PG&E will share these new programs and how they reduced material defects by 85%.

**10:40 am - 11:25 am**  
**A Status Report from the Epicenter of Change in the U.S. Gas Industry - Progress at PG&E**

Chief Regulatory Strategist  
*Pacific Gas and Electric Co.*

This presentation describes the latest status of changes, challenges, and progress at PG&E in a number of areas: Asset and risk management (including PAS55/ISO55001 certification); the work that has been executed over the last three years; changes and improvements in standards, policies, procedures, and work methods; utilizing the gift of feedback; engagement with the industry and regulators; results of rate cases and other regulatory proceedings; status of commitments; workforce development and training; culture change, safety management system and employee engagement.

**11:30 am - 2:00 pm**  
**Buffet Lunch - Exhibit Hall**
Track A2

9:50 am - 11:25 am
Safety/Field Operations

Presiding: Paul Pirro
Manager, Technical Services
Public Service Electric and Gas Co.

9:50 am - 10:35 am
Eliminating Fatality Exposure - Insight Into Preventing Life-Altering Injuries in the Natural Gas Sector

Research shows that the causes and correlates of serious injury events are usually different from those of less-severe injury events—and require unique interventions to address. This presentation will discuss approaches to eliminating serious injuries and fatalities in the natural gas industry and the ways operators can identify precursors and mitigation strategies to the most dangerous risks.

Jim Spigener
Senior Vice President
BST

10:40 am - 11:25 am
How to Keep a Customer Online During Meter Set Maintenance

Most gas utility companies face an inherent problem servicing residential and commercial meter sets. In order to service the meter sets, the gas needs to be shut off, which thereafter requires reigniting pilot lights to furnaces, boilers, water heaters, etc. This is time consuming and inconvenient for both the service technician and property owner. Shutting down the gas source to residences or commercial facilities can also cause commercial customers revenue losses. This presentation will discuss some of the different alternatives to ensure that customers remain online during routine and non-scheduled maintenance and gas shutdowns. (Coauthor: G. Muir, Emerson Process Management - Regulator Technologies)

Joe Ugarte
Vice President, Global Sales - Tescom Emerson Process Management - Regulator Technologies

11:30 am - 2:00 pm
Buffet Lunch - Exhibit Hall

Track A3

9:50 am - 11:25 am
Distribution Measurement & Regulation

Presiding: Loretta Baggenstos
Gas Measurement Manager
Puget Sound Energy

9:50 am - 10:35 am
How SGIP and the GTWG Relate to AMI for Gas

Overview of what the Smart Grid Interoperability Panel (SGIP) is and how it relates to Advanced Metering Infrastructure (AMI) for gas. Discussion will focus on recent activities the Gas Technology Working Group (GTWG) has undertaken to define distribution automation like features (such as AMI pressure sensing) and how the group is interacting with the AGA AMI subcommittee and how utilities can participate.

Joseph Turgeon
Principal Consultant
Black & Veatch Management Consulting

Chris Ziolkowski
R&D Manager, Information Ecosystem
Gas Technology Institute

10:40 am - 11:25 am
Pitched Meter Accuracy

This presentation will provide an evaluation of diaphragm meter accuracy when installed in a non-level or non-plumb meter set. Also to be shared is an early study to assess accuracy impact on meters tilted at varying degrees and provides high level overview of metering performance.

Ryan Bigelow
Measurement Engineer
CenterPoint Energy

11:30 am - 2:00 pm
Buffet Lunch - Exhibit Hall
**Track A4**

**9:50 am - 11:25 am**
**Transmission Measurement**

*Presiding: Ardis Bartle*
Manager
APEX Measurement & Controls LLC

**9:50 am - 10:35 am**
**How Improved TDLAS Technology Can Help to Reduce Transmission Gas Processing Costs**
The natural gas sector is growing rapidly and gas processing costs are a large part of the production overhead. This presentation will discuss how improved TDLAS technology can lead to increased gas processing efficiencies, and will include field data to support these conclusions.

*Andrew M.V. Stokes*
Technical Director
Michell Instruments Ltd.

**10:40 am - 11:25 am**
**Evaluating a Tunable Filter Spectrometer Online Gas Analyzer**

This presentation summarizes a field trial result of a new real-time, online gas analyzer. The test is designed to evaluate the field performance of an online gas analyzer in a custody measurement application while comparing the results to a traditional gas chromatograph.

*Juan David Escobar P.E., CAP, AVS*
Measurement Specialist
Saudi Arabian Oil Co. (Aramco)

**11:30 am - 2:00 pm**
**Buffet Lunch - Exhibit Hall**

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**Track A5**

**9:50 am - 11:25 am**
**Corrosion**

*Presiding: Diego Politano*
Project Specialist
Consolidated Edison Co. of New York, Inc.

**9:50 am - 10:35 am**
**IR-Drop Considerations for Direct Connected Mag Anodes**

This presentation will summarize testing performed by Consumers Energy to address IR-drop consideration alternatives for directly connected magnesium anodes. The ON potential profile at magnesium anode locations may allow for the calculation of the disconnected potentials of the system.

*Jim F. Warner*
Corrosion Control Lead
Consumers Energy Co.

**10:40 am - 11:25 am**
**Gas/Electric Arcing Interactions**

This presentation will provide a review of electric ground fault events, focusing on: electric distribution systems, how arcing has damaged natural gas piping, and response to gas/electric interactions.

*Michelle Gallardo*
Senior Engineer
Puget Sound Energy

*Alan G. Mulkey*
Consulting Engineer, Gas System Integrity
Puget Sound Energy

**11:30 am - 2:00 pm**
**Buffet Lunch - Exhibit Hall**

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**Track A6**

**9:50 am - 11:25 am**
**Transmission Pipeline Operations**

*Presiding: Mary Bartholomew*
Manager, Engineering Staff
Southwest Gas Corp.

**9:50 am - 10:35 am**
**Advanced Sensing Technologies and Operational Enhancements for Inspection of Unpiggable Pipelines**

This presentation will feature recent advancements in the development of state-of-the-art sensing technologies for defect and crack detection in unpiggable natural gas pipelines, as well as the development of tools to improve the operational efficiency of inspection robots for such pipelines. Case studies will be presented based on field experience with such tools.

*Coauthor: P. Laursen, Invodane Engineering*

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

**10:40 am - 11:25 am**
**Thermal Stabilization During Hydrostatic Testing**

This presentation will feature theoretical results from a thermal stabilization model for various pipe sizes, soil thermal properties, and initial temperature differentials, as they relate to hydrostatic pressure testing. Field validation data will be presented if available. The model’s objective is to enable more accurate (and perhaps quicker) evaluation of pressure test results.

*Coauthor: L. Decker, RCP Inc.*

*W. R. (Bill) Byrd P.E.*
President
RCP Inc.

**11:30 am - 2:00 pm**
**Buffet Lunch - Exhibit Hall**
**Track A7**

**9:50 am - 11:25 am**

**Gas Control**

*Presiding: Wayne Rutledge*
Manager, Gas Control
AGL Resources Service Co.

**9:50 am - 10:35 am**

**CRM: SCADA and Alarm Management - Overcoming the Hurdles**

This presentation covers point-to-point verification; API RP 1165; backup testing; master alarm database; alarm rationalization; monthly alarm reviews –understanding the regulation and inspection questions; building effective compliance plans and documentation; and using industry practices to prepare for a successful inspection.

*Ali Gibson*
Operations and Human Factors Consultant
Pipeline Performance Group

**10:40 am - 11:25 am**

**Evolution of the SCADA HMI**

With the emphasis on incorporating the requirements of API RP 1165, many operating companies are re-evaluating their HMI philosophies. Some are adopting the ASM (Abnormal Situation Management) compliant graphics while others continue to use traditional SCADA displays. This presentation examines the industry trends and issues around the various HMI implementations.

*Kelly M. Doran*
Product Manager
Schneider Electric

**11:30 am - 2:00 pm**

**Buffet Lunch - Exhibit Hall**

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**Track B1**

**2:00 pm - 5:30 pm**

**Safety/Gas Utility Management**

*Co-Presiding: Erin Kurilla*
Engineering Services Manager
American Gas Association

*Co-Presiding: Diego Politano*
Project Specialist
Consolidated Edison Co. of New York, Inc.

**2:00 pm - 2:45 pm**

**AGA Safety Achievement Award Presentation**

*Cheryl F. Campbell*
Vice President, Gas Engineering and Operations
Xcel Energy Inc.

**2:55 pm - 3:40 pm**

**AGA Safety Achievement Vehicular Award Presentation**

*TBA*

**3:50 pm - 4:35 pm**

**Peer Review Program (panel)**

A moderated panel discussion with representatives from Avista, Consolidated Edison and Duke Energy who have completed their peer reviews. Panelists will highlight features and benefits of the program, share direct experiences and answer related questions from the audience. This session will be helpful for companies who are scheduled for their peer reviews later in the cycle to gain insights into what to expect during the week-long process. It will also help those companies who have not signed-up for the program in this cycle to determine their interest for the next review cycle.

*Moderator: Erin C. Kurilla*
Engineering Services Manager
American Gas Association

**4:45 pm - 5:30 pm**

**Operator Qualification**

CenterPoint Energy will provide a presentation on its practices and strategies in efficiently complying with Subpart N of the federal pipeline safety code.

*Barbara Varanauski P.E.*
Manager, Operation Compliance
CenterPoint Energy

**5:30 pm - 7:00 pm**

**Cocktail Hour - Exhibit Hall**
Track B2

2:00 pm - 5:30 pm
Plastic Materials

Presiding: Edward Ostrovich
Engineering Manager
Atmos Energy Corp.

2:00 pm - 2:45 pm
Tracking and Traceability for Pipes, Fittings, and Fusions
This presentation will provide an overview of Avista’s experience and future plans for implementing a GIS-based tracking and traceability program. The program includes GPS mapping, barcode scanning, and fusion traceability.

Jake Jacobs
GIS Analyst
Avista Utilities

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

Michael J. Faulkenberry P.E.
Director, Natural Gas
Avista Utilities

2:55 pm - 3:40 pm
Inspection of Polyethylene Fusions and Electrofusions
A novel approach to inspecting butt fusion, socket fusion and electrofusion is presented. The technology is based on ultrasonics but manages to be more effective than previous ultrasonic methods due to a unique computational approach in analyzing the sound waves. This gives the inspector an opportunity to identify good and bad fusions.

(Coauthors: A Burns, K. Ross - Impact Solutions; K. Oliphant, JANA Corp.)

Dr. Peter Angelo
Technical Lead - Risk Modeling
JANA Corp.

3:50 pm - 4:35 pm
HDPE Fusion Procedures: Comparing ASTM F2620 to PPI TR-33
This presentation will provide a contrast and compare of the content and procedures called out in ASTM F2620 vs those in PPI TR-33. Most non-gas industries have adopted the ASTM standard while the gas industry in many areas still uses the PPI standard.

Jim Johnston Jr.
Director of Industry Relations and Standards
McElroy Manufacturing, Inc.

4:45 pm - 5:30 pm
How Bi-Modal PE Contributes to Extending Life Expectancy of Gas Distribution Pipelines
Bi-modal polyethylene materials, both HDPE and MDPE, contribute to the design of pipelines with lifetimes that are past relevance to current stakeholders (>125 years).

Specifically, the presentation explores common pipe failure modes in gas applications and how these new materials address them directly. Installation is also considered.

(Coauthors: W. Bryce, K. Oliphant - JANA Corp.; D. Chang, Dow Chemical Co.)

Dr. Peter Angelo
Technical Lead - Risk Modeling
JANA Corp.

Track B3

2:00 pm - 5:30 pm
Distribution Measurement & Regulation/ Engineering

Co-Presiding: Steve Schueneman
Supervisor, Gas System Engineering
Puget Sound Energy

2:00 pm - 2:45 pm
Fundamentals of District Regulator Design
This presentation outlines the fundamental steps necessary to begin and complete a district regulator design. It will focus on the techniques used to develop target locations and the subsequent designs. This presentation will cover replacements and new installations and offers both the engineering and field maintenance perspective.

(Coauthor: J. Davis, Northeast Utilities)

Scott A. LaPlante
Manager, Pressure Management
Northeast Utilities

2:55 pm - 3:40 pm
What's New in Measurement and Regulation (panel)

Panelists:

Tod Bradley
Senior Director, Sales & Marketing
Elster Perfection

James Deale
Sales Manager, RMG
Honeywell Process Solutions

Glen Heard
Region Sales Director
Romet Limited

2:00 pm - 5:30 pm
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Dr. Peter Angelo
Technical Lead - Risk Modeling
JANA Corp.

5:30 pm - 7:00 pm
Cocktail Hour - Exhibit Hall
This presentation will explain how statistically-based Monte Carlo analysis methods can be used to quantitatively evaluate and compare risk mitigation options for individual sites containing, or adjacent to, gas transmission pipelines. The model can incorporate a wide variety of population densities in both time and space, and quantify the potential benefits of specific site adjustments in reducing cumulative or maximum risk.

W. R. (Bill) Byrd P.E.
President
RCP Inc.

4:45 pm - 5:30 pm
Retaining and Training New Engineers (panel)
Companies who are retaining good engineers are not doing it by accident. Hear about company programs where the objective is to ensure that new engineers are trained and retained within their company. Good programs offer a mix of opportunities for new engineers, such as internal and external classes, functional rotations, mentors, etc. This panel will feature three companies who have been identified as having a lead training and retention program for new engineers. Each company will give an overview of their program and then an open discussion will follow.

Panelists:
Gonzalo Juarez
Senior Manager, Engineering Construction & Maintenance Enbridge Gas Distribution Inc.

Liquefied natural gas is of increasing commercial importance. Sampling and analysis may be sources of uncertainty. A facility for preparation of LNG directly from gaseous reference materials gives traceable liquid mixtures, which can be used to check vaporization efficiency and for direct, e.g., spectroscopic, composition measurement.

Chris Cowper
Effectech

Discussion of the Uncertainty Calculation Methods of Natural Gas Energy Determination Results Depending on the On-Site GC and Ultrasonic Facilities
This presentation will discuss the uncertainty calculation methods of natural gas energy determination results in large-scale natural gas delivery interface, mainly including the heating-value and flow quantity measurement depending on the on-site GC and ultrasonic facilities.

Luo Qin
Professor, Deputy Chief Engineer Research Institute of Natural Gas Technology
Sampling from unconventional sources has been a learning experience for the natural gas industry and is quickly becoming the new “normal.” This presentation will discuss sampling challenges and offer solutions associated with sampling wet shale gas, deep-water offshore gas, and gas used as part of the Enhanced Oil Recovery (EOR) process.

Coauthor: M. Firmin, A+ Corporation, LLC

Shannon Bromley
Product Manager
A+ Corporation, LLC

New Calorific Value Analyzers for New Businesses

A benchmark was first conducted by the CRIGEN in order to identify multi-gas analyzers that could be of interest. In a second phase, evaluation tests were performed on the most promising solutions to assess their analytical performances.

Alice Vatin
Research Scientist
GDF Suez

Transforming Pipeline Safety Public Awareness for First Responders

Recent industry incidents have raised concerns about operators’ responsibility to first responders and their preparedness to address pipeline emergencies. This presentation shares an innovative web-based program focused on engaging and educating first responders in a unique and "transformational" manner. The program was developed by National Grid and Culver Company, a nationally recognized consultant.

Brennan Culver
President
Culver Company

Kathleen McNamara
Program Manager, Pipeline Safety
Public Awareness
National Grid
Various innovations in trenchless technology processes and their applications for the installation, replacement or renewal of gas facilities have taken place. This presentation will review various technological advancements in several trenchless construction techniques of interest to the gas industry through case studies. The prospective future of the trenchless industry will also be discussed.

**George Ragula**
Distribution Technology Manager
Public Service Electric & Gas Co.

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

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This presentation will discuss several aspects of propane-air systems, including theory of use, types of equipment, system configurations, computer controls and typical applications. Also discussed are changes being made to existing propane-air systems to better meet current day industry needs.

**John P. Hoch**
President
Standby Systems, Inc.

**2:05 pm - 3:40 pm**
**Alternative Feeds for Natural Gas Supply During Pipeline Integrity Outages**
This presentation discusses how utilities and municipalities can plan and serve their customers with alternative feeds (CNG/LNG) during pipeline integrity outages. (Coauthor: J. Schauer, CenterPoint Energy)

**Dimitri Karastamatis**
General Manager
CenterPoint Energy

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Significant upgrades to existing LNG facilities through the replacement or additional installation of liquefaction equipment employing the latest technologies involve potential technical and other challenges. This presentation discusses, besides any limitations set by already existing installations and operating permits, the integration of new with “grandfathered” equipment as well as possible changes in the operation of the facility.

**Georg Breuer**
LNG Product Manager
Linde Process Plants, Inc.

**4:45 pm - 5:30 pm**
**Supplementing Natural Gas Deliveries with Propane; An Overview of Propane-Air Systems Used in the Natural Gas Industry**

This presentation will cover how components of Process Safety Management Programs can be applied to LNG and Propane Air peakshaving facility operations similar to the chemical industry where benefits can be gained.

**Gary D. Blevins**
EN Engineering, LLC
As safety is paramount within the pipeline industry, this presentation will explore how the Double Block and Bleed isolation methodology facilitates reduced operational risk, increased on-site efficiency, minimized maintenance cost, and maximized pipeline-operator safety. (Coauthor: F. Dum, T.D. Williamson, Inc.)

Grant Cooper
Manager, HT&P Commercialization
T.D. Williamson, Inc.

David Turner
Director, HT&P Technology
T.D. Williamson, Inc.

In 2011, in an advisory bulletin regarding MAOP/MOP, PHMSA said that supporting records must be traceable, verifiable, and complete. This presentation will discuss how to apply this standard to records demonstrating compliance with regulations for CRM, IMP, OQ, O&M, and Public Awareness. It will also recommend methods for content validation and practices for review and analysis in a continuing program of records handling and maintenance. Finally, techniques for preparing for a records audit by a federal or state regulator will be discussed.

Tricia Thomason
Vice President, Compliance Services
Miller Consulting Services

API’s new Recommended Practice, Pipeline Safety Management Systems (RP 1173), addresses promoting and measuring safety cultures in the organization and in the control room. It includes measured controllers’ observations of safety issues and safety culture in over 30 pipeline facilities. This presentation will highlight the results of those studies and provide recommendations on measuring safety culture in pipelines. (Coauthor: C. Alday, Pipeline Performance Group)

Michele Terranova
Human Factors Consultant
Pipeline Performance Group

This presentation reviews the in-service assessment of an extremely difficult-to-reach casing located under a major culvert in a congested intersection using the Pipetel Explorer tool. Explorer had to navigate a 30-foot vertical climb via a Mueller bottom-out fitting in order to successfully complete the assessment. (Coauthor: R. Lee, Pipetel Technologies)

Mary A. Bartholomew
Manager, Engineering Staff
Southwest Gas Corp.
**Track C1**

8:00 am - 9:40 am
Plastic Materials

Presiding: Edward Ostrovich  
Engineering Manager  
Atmos Energy Corp.

8:00 am - 8:45 am
Plastic Pipe Database Committee (PPDC) Update
A status report on data collection and PPDC statistics including how gas companies can use data analysis in Status Report for DIMP and replacement programs.

Timothy J. Lauder  
Manager, Technical Support - Distribution  
Public Service Electric and Gas Co.

8:55 am - 9:40 am
Heavy Hydrocarbon Impact on PE Pipe
The presence of heavy hydrocarbons in plastic pipe can have a negative influence on two important aspects associated with gas operations: thermal fusion quality and pipe strength. The magnitude depends on the level of contamination. GTI will present the latest findings on their current DOT/PHMSA-funded project examining this issue. (Coauthors: K. Crippen, T. Kosari - Gas Technology Institute)

Ernest Lever  
Senior Institute Engineer  
Gas Technology Institute

**Track C2**

8:00 am - 9:40 am
Construction & Maintenance/Field Operations

Presiding: Gary Hebbeler  
General Manager, Gas Field & Systems Operations  
Duke Energy Corp.

8:00 am - 8:45 am
Building an Intelligent Natural Gas Sensor Network
3M is developing an intelligent natural gas sensor network for the monitoring, measuring, mapping and pinpointing of gas leaks & emissions throughout the natural gas value chain. This platform of sensors and algorithms executes multivariate experiments within normal operational ranges to generate and continuously build causal knowledge on the effects and interactions of system parameters, and applies this knowledge to achieve immediate and longer term gas network operational and compliance goals.

Brian Brooks Ph.D.  
Senior Research Specialist  
3M

8:55 am - 9:40 am
Automatically Finding Who’s Closest to the Trouble
When a customer reports an after-hours leak, Nicor wants a first responder fast. With a cloud-based system Nicor designed to track employee location and hours, dispatchers find the closest available responder every time, while equalizing overtime. Nicor ensures a swift response; the union eliminates grievances; and customers are satisfied.

Peter Addotta  
Manager, Centralized Scheduling  
Nicor Gas, an AGL Resources Co.

**Track C3**

8:00 am - 9:40 am
Distribution Measurement & Regulation/Corrosion/Engineering

Presiding: Loretta Baggenstos  
Gas Measurement Manager  
Puget Sound Energy

8:00 am - 8:45 am
Design and Standardization of Stations at AltaGas Utilities
This presentation covers gate/custody transfer station design before standardization; potential drawbacks; rationale behind standardizing; first phase of standardization: equipment standards; piping templates; second phase: developing sizing tool to automatically select standard station model based on any set of operating conditions; resulting benefits and current state; next steps and future phases.

Vincent Chou  
Senior Engineer - System Integrity & Standards  
AltaGas Utilities Inc.

8:55 am - 9:40 am
Operational Efficiency through AMI: Cathodic Protection Solutions - panel
Preventing pipeline corrosion is a federally regulated, on-going challenge for natural gas transport and distribution utilities. Obtaining necessary measurements is time consuming for a skilled and scarce human resource, and is, therefore, an expensive undertaking. Two-way AMI networks can be utilized to reduce these costs and as an added benefit, generate more timely, actionable intelligence. This session will provide an overview of AMI Cathodic Protection technology and how automated collection of data can reduce costs, improve operational efficiency, and allow resources to focus on higher value tasks.

Panelists:
Enterprise Analytics software goes beyond collecting and storing raw data from field instruments by enhancing functionality to perform logical analysis and analytical calculations on gas quality and measurement information. Using analytics software to proactively monitor system performance, can result in improved system reliability, enhanced tariff compliance and reduced LAUF. (Coauthors: L. Shaffer, M. Mays, T. Hart - Columbia Pipeline Group; B. Toich, RoviSys Corp.)

John Cox
Manager, Measurement & Gas Quality
Columbia Pipeline Group

With increasing focus on zero liquid content specifications for markets such as power generation, there is an increasing requirement not just to measure hydrocarbon dewpoint temperature but to measure it to very high accuracy and sensitivity. This presentation explains how these challenges have been met by recent improvements to established HCDP technologies.
Track C5

8:00 am - 9:40 am
Safety/Engineering

Presiding: Denise Kennedy  
Safety Consultant  
Piedmont Natural Gas Co., Inc.

8:00 am - 8:45 am
A "Cutting-Edge" Leading Indicator, Employee Engagement Initiative that Really Works!

Director, Safety - Certified Safety Professional  
Northeast Utilities  
Bruce Bolger

This will be a thought-provoking, entertaining, informative presentation on a "true" leading indicator. This simple, cost effective, yet powerful process will engage all employees and management on the journey to world-class safety performance. Attendees will leave with a blueprint for success on establishing a proven leading indicator.

8:55 am - 9:40 am
Integrity Program Evaluation Using Meaningful Performance Metrics - What You Did, What You Learned and is it Working

Pipeline Safety Management Systems (API 1173), the recent PHMSA guidance presented in ADB 14-05 and Asset Management (ISO 55001), have requirements for performance based program evaluation. This presentation will cover the history of the performance regulations, the importance of P&M measures and the use of process management to ensure compliance through program formalization, data collection, investigation, analysis and corrective actions. Plan, Do, Check, Act

Track C6

8:00 am - 9:40 am
Gas Control

Presiding: Wayne Rutledge  
Manager, Gas Control  
AGL Resources Service Co.

8:00 am - 8:45 am
21st Century Compliance: Traceable, Verifiable, and Complete

The Pipeline Safety Reauthorization Act of 2012 significantly altered the compliance landscape. Using case studies, this presentation will illustrate how to implement the traceable, verifiable and complete compliance processes emphasized by PHMSA. Innovative software technologies can help reduce NOPVs, protect employees and infrastructure from risk, and maximize performance. (Coauthor, S. Friedman, AyaWorks)

8:55 am - 9:40 am
Lessons Learned from 100 Control Room Management Projects

Pipeline Performance Group will be presenting on lessons learned from their own workload assessments, fatigue management systems, training programs and control room procedures that can be applied to the improvement of existing or new CRM plans. (Coauthor: A. Gibson, Pipeline Performance Group)

Charles Alday
Human Factors Consultant  
Pipeline Performance Group
Track C7

8:00 am - 9:40 am
Supplemental Gas

Presiding: Christopher Anderson
Manager, LNG Plant
Southwest Gas Corp.

8:00 am - 8:45 am
Compressed Natural Gas Supply Vehicles

Enbridge Gas Distribution designed, built and obtained approval for vehicles with on-board storage of compressed natural gas to supply customers during regulator station repairs. This presentation will cover how use of these vehicles eliminated relights, resulted in costs savings and minimized customer inconvenience.

Daniel Johnson P.Eng.
Manager, Distribution Technology
Enbridge Gas Distribution

8:55 am - 9:40 am
LNG as Transportation Fuel – Market Update

This presentation will give an update of the current market direction and drivers for LNG as a transportation fuel for over the road trucking, marine and rail applications.

Kevin Markey
Director of Natural Gas Fueling Solutions
GP Strategies

Track D1

10:00 am - 11:40 am
Corrosion

Presiding: Diego Politano
Project Specialist
Consolidated Edison Co. of New York, Inc.

10:00 am - 10:45 am
Understanding Internal Corrosion of Natural Gas Systems

Internal corrosion of natural gas systems can be caused by several factors. Natural gas, composed mostly of methane, may contain mixtures of other hydrocarbons and may contain other compounds. In addition, maintenance and pressure testing may allow trace amounts of water vapor to be left behind in the system. This presentation discusses some of the different elements which can impact corrosion in the system, depending on the process parameters and location within the system.

(Coauthor: Jim Griffin, Emerson Process Management)

Ali Babakr
Metallurgist
Emerson Process Management

10:55 am - 11:40 am
Leaks Are Not the Only Threat Indicator

Opvantek will share approaches developed with several gas distribution utilities for assessing risk associated with threats that are not indicated by historical leak records. Examples include selective seam corrosion predicted by pipe inspections, cross bore likelihood based on work orders and claims, and Aldyl A failures predicted by material sampling.

Tony Sileo
Vice President, Sales & Product Management
Opvantek
Track D2

10:00 am - 11:40 am
Field Operations

Presiding: Vanessa George
Senior Staff Associate, Operations & Engineering
American Gas Association

10:00 am - 10:45 am
AGA Best Practices Program Presentation - Damage Prevention at Washington Gas

The AGA Best Practices program helps participating member companies improve reliability, safety and efficiency. This presentation was chosen as one of the best of the 2014 Best Practices Roundtable meetings.

Scott Brown
Manager, Operations Compliance
Washington Gas

10:55 am - 11:40 am
AGA Best Practices Program Presentation - Redefining Leak Management at PG&E

The AGA Best Practices program helps participating member companies improve reliability, safety and efficiency. This presentation was chosen as one of the best of the 2014 Best Practices Roundtable meetings.

Dennis MacAleese
Superintendent, Leak Management
Pacific Gas and Electric Co.

11:40 am - 12:50 pm
AGA Leadership Lunch - All Registrants Invited

Track D3

10:00 am - 11:40 am
Distribution Measurement & Regulation/Engineering

Presiding: Loretta Baggenstos
Gas Measurement Manager
Puget Sound Energy

10:00 am - 10:45 am
Life Expectancy of a Meter

A utility perspective on the life expectancy of a domestic gas meter will be discussed.

Frederick J. Maly
Director, Measurement
Laclede Gas Co.

10:55 am - 11:40 am
Overpressure Protection 192.195 and the Downstream User

Through investigations of public records and conversation with operators in the industry, findings have shown an increase of downstream users being cited for inadequate OPP (192.195). The goal of this presentation is to bring awareness to pipeline operators while providing a technical background of how a pipeline might overpressurize.

C. David Slavin
Assistant Pipeline Engineer
Burns & McDonnell

11:40 am - 12:50 pm
AGA Leadership Lunch - All Registrants Invited

Track D4

10:00 am - 11:40 am
Transmission Measurement

Presiding: Ryan Nutter
Engineer II
Dominion Transmission

10:00 am - 10:45 am
Use of the GERG-2008 Equation of State for Hydrocarbon Dewpoint Calculations

The GERG-2008 equation of state is becoming the standard equation for all single-phase thermodynamic properties of natural gas. This presentation will show how it can be used to accurately calculate hydrocarbon dew points for real natural gases when the detailed composition is not available.

Andrew Laughton
Principal Scientist
DNV GL (Oil & Gas)

10:55 am - 11:40 am
How to Control Biomethane Pollutants – Focus on Terpenes

During biogas production, different pollutants such as terpenes could be found. If present in the biomethane, these components could cause several damages on the gas grid. Therefore, to control the gas quality is a key step before injecting. Gas chromatography can be employed to measure the content of terpenes.

(Coauthors: C. Senne, L. Pyree, H. Rabetsimamanga - GDF Suez)

Etienne Bosset
Research Engineer
GDF Suez

11:40 am - 12:50 pm
AGA Leadership Lunch - All Registrants Invited
Track D5
10:00 am - 11:40 am
Safety
Presiding: Denise Kennedy
Safety Consultant
Piedmont Natural Gas Co., Inc.
10:00 am - 10:45 am
Green Beans & Ice Cream: The End of Lagging Indicator Incentives As We Know Them
For the past few years OSHA has been barking louder and louder about how old-school lagging incentive programs cause injury hiding, and how you should replace them with a behavior-based approach. So, how will you start making the change? Bill Sims, Jr. will show you the way!
Bill Sims Jr.
President
The Bill Sims Company

10:55 am - 11:40 am
Green Beans & Ice Cream (cont’d)

11:40 am - 12:50 pm
AGA Leadership Lunch - All Registrants Invited

Track D6
10:00 am - 11:40 am
Gas Control/Gas Utility Management
Presiding: Erin Kurilla
Engineering Services Manager
American Gas Association
10:00 am - 10:45 am
Review of AGA’s White Paper on Impacts to LDCs on Changes to the Gas Day Start Time
This presentation will review the AGA white paper published by the Gas Control Committee which analyzed potential safety, reliability and operational impacts to operators if the operational ‘Gas Day’ is changed from the current 9 a.m. CST start to a proposed 4 a.m. CST start. This paper was developed in response to the 2014 FERC NOPR RM14-2-000 on gas-electric interdependence that proposed the start time change in addition to other gas nomination streamlining initiatives. The white paper can be downloaded from the AGA website.
Junaid Faruq
Engineering Services Specialist
American Gas Association

10:55 am - 11:40 am
Analysis of Risk Due to Trees Near Pipelines
As part of PG&E’s Pipeline Pathways program to reclaim PG&E’s gas transmission right-of-ways, PG&E initiated a study to better understand the impact of trees and their roots on pipelines. As a result, PG&E has developed a site-specific risk methodology to assess the risk associated with trees on the pipeline. This presentation will share some examples from the studies PG&E performed and will also describe the methodology being used for assessing risk.
Bennie Barnes
Director
Pacific Gas and Electric Co.
Bronson Ingemansson
Risk Engineer
Pacific Gas and Electric Co.

11:40 am - 12:50 pm
AGA Leadership Lunch - All Registrants Invited
10:00 am - 11:40 am  
**Supplemental Gas/Underground Storage**

*Co-Presiding: Craig Johnson  
Gas Storage Operations Manager  
Consumers Energy Co.*  
*Co-Presiding: Christopher Anderson  
Manager, LNG Plant  
Southwest Gas Corp.*

10:00 am - 10:45 am  
**Advances in Physical Property Measurements of LNG: From Level, Temperature, and Density to In-Situ Raman Spectroscopy for Real-Time Composition and Heating Value Analysis**

*Adam Kurland Ph.D.*  
Business Development, Measurement & Instrumentation  
Scientific Instruments, Inc.

10:55 am - 11:40 am  
**Geological Carbon Sequestration Updates**

This presentation will cover the work that the Midwest Geologic Sequestration Consortium did to demonstrate that carbon dioxide can be safely and efficiently stored in the Mt. Simon Sandstone, which is the basal sandstone in the Illinois Basin. The presentation will also discuss the permits that have been issued for additional injection wells and basin-scale modeling that has been conducted to demonstrate the feasibility of commercial-scale, geologic sequestration in the Mt. Simon Sandstone.

*Ed Mehnert Ph.D.*  
Sr. Geohydrologist, Hydrogeology & Geophysics Section  
Illinois State Geological Survey

11:40 am - 12:50 pm  
**AGA Leadership Lunch - All Registrants Invited**

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1:00 pm - 3:20 pm  
**Track E1**

1:00 pm - 1:45 pm  
**Qualification Program for Electrofusion Fittings**

A comprehensive program for qualifying new electrofusion fittings and joining procedures is presented based on a fault tree analysis of potential field failure modes.  
(Coauthors: W. Luff, P. Angelo, P. Vibien - JANA Corp.)

*Dr. Ken Oliphant*  
Executive Vice President  
JANA Corp.

1:55 pm - 2:40 pm  
**Study of PCB Absorption in PE Pipe**

The consequences of PCB exposure inside PE pipe have been unknown. Absorption of PCBs into the PE pipe wall may mean that post-rehabilitation abandonment would be impossible under EPA regulation. This presentation will review the favorable outcome of recently completed research revealing actual PCB absorption results.

*Joseph P. Mallia*  
Senior Project Manager  
Northeast Gas Association

*Robert D. Wilson*  
Director, Pipeline Safety & Compliance  
National Grid
Pending federal regulations along with high-profile distribution pipeline integrity issues have pushed traceability of butt fusion joint parameters to the forefront. This presentation demonstrates new technological advancements available in butt fusing small diameter pipe in order to accommodate traceability, along with providing advanced analytics to reduce quality assurance concerns. (Coauthor: V. King, McElroy Manufacturing, Inc.)

Craig Schreiner
Market Development Manager
McElroy Manufacturing, Inc.

Track E2

1:00 pm - 3:20 pm
Construction & Maintenance/Field Operations

Presiding: Gary Hebbeler
General Manager, Gas Field & Systems Operations
Duke Energy Corp.

1:00 pm - 1:45 pm
Utility Contractor Management - panel

Natural gas utilities are relying more than ever on contractors as a critical part of their field workforce. Panelists will be comprised of gas utility contractors who will share their insights on what utilities and contractors should be doing in order to form a successful business relationship.

Moderator: Eben M. Wyman
Principal
Wyman Associates

1:55 pm - 2:40 pm
Modeling Cross-Bore Risk

A quantitative risk assessment (QRA) tool for assessing cross-bore risk is discussed. Based on a fault tree analysis of the factors impacting the potential for cross bores, the model provides a tool for prioritizing inspections, understanding the overall system risk, and assessing risk relative to other system risks.

Dr. Ken Oliphant
Executive Vice President
JANA Corp.
Track E3

1:00 pm - 3:20 pm
Distribution Measurement & Regulation/Field Operations

Co-Presiding: Paul Pirro
Manager, Technical Services
Public Service Electric and Gas Co.

Co-Presiding: Michael Bellman
Engineering Services Manager
American Gas Association

1:00 pm - 1:45 pm
Underground HDPE Service Regulator & Ultrasonic Meter Compact Set, For End-Use Gas Supply System

The underground HDPE service gas regulator is changing the way to supply domestic gas, with an “out of sight” solution. This presentation will review this technology which allows elimination of unsightly above ground service regulators. The solution also eliminates a target for above ground damage from vehicles, lawn mowers, snow and ice. How technology manages the interconnection with the electronic meter enhancing better performance while saving time, money, space and weight will also be discussed.

Giorgio Maracchi
Manufacturas Marachem CA

1:55 pm - 2:40 pm
PECO Lessons Learned Deploying a Fixed Network AMI System

The PECO project management team shares experiences and lessons learned from deploying their two-way AMI fixed network system. This presentation focuses on activities including AMI technology validation (two-way communications and latency, over-the-air firmware download, encryption lifecycle, measurement and parameter changes); network operations (coverage issues, read performance, no-reads, orphans, alarm handling); and configuration/release management coordination between elements (head-end, base station, modules).

William H. Sheneman
Manager, Meter Shops & Strategic Initiatives
PECO Energy, An Exelon Co.

Joseph Turgeon
Principal Consultant
Black & Veatch Management Consulting

2:50 pm - 3:20 pm
Incident Command System Use for Pipeline Emergencies

This presentation will address the need for pipeline operators to train company first responders on the practical use of the Incident Command System, which is the nationwide standard for management of emergencies. It will further address the need for pipeline operators to exercise use of the Incident Command System internally and externally with public sector responders.

Glen Boatwright
Director, Regulatory Compliance
York County Natural Gas Authority

Track E4

1:00 pm - 3:20 pm
Transmission Measurement/Supplemental Gas

Presiding: Tushar Shah
Sr. Director, Business Development
Eagle Research Corp.

1:00 pm - 1:45 pm
Dynamic Measurement Solutions in LNG Custody Transfer

Current levels of uncertainty in LNG custody transfer operations represent a significant fiscal risk. The application of best practices for ultrasonic meter flow measurement, combined with the latest LNG proving technology to ensure ongoing sustainable and reliable measurements, sets the foundation for acceptable check metering to manage and validate transfer discrepancies. (Coauthor: R. Mimmi, Emerson)

Drew Weaver
Director, Fluid Mechanics & Global Flow Labs
Daniel Measurement and Control

1:55 pm - 2:40 pm
Fine Tuning Coriolis Flow Meter Calibrations Utilizing Piece-Wise Linearization

This presentation will review historic calibration practices for Coriolis flowmeters, including the acceptability of the transfer of water calibrations to meet gas measurement accuracy requirements. It will then introduce new test data showing the implementation of automatic 10-point piece-wise linearization capability to facilitate the agreement of a calibrated Coriolis meter with gas laboratory flow references to even greater precision. (Coauthors: R. Gibson, ONEOK; M. Buttler, K. Stappert, Emerson - Micro Motion)
Coriolis mass flowmeters with advanced diagnostics capability are able to track mechanical parameters that might lead to adverse wear resulting in measurement error and possible failure.

Michael J. Keilty
Standards and Metrology Manager
Endress+Hauser Flowtec AG Division
USA

One of the most prevalent and costly workplace safety issues is the inability to effectively hold others accountable for safety violations. In this engaging session, participants will learn from case-study examples including how pride improved their incident rate by 55% through increasing accountability. Learn how to restore workplace safety by holding anyone accountable regardless of position.

Steve Willis
Senior Master Trainer, Vice President of Professional Services
VitalSmarts

This presentation will provide “tried and true” techniques which will directly assist in building relationship and influencing skills—skills necessary to succeed in today’s workplace. Attendees will explore methods, which if used, will captivate and engage key customers and employees.

Bruce Bolger
Director, Safety - Certified Safety Professional
Northeast Utilities
Program - Thursday, May 21

Track E6

1:00 pm - 3:20 pm
Corrosion/ Engineering/ Transmission Pipeline Operations

Presiding: Mary Bartholomew
Manager, Engineering Staff
Southwest Gas Corp.

1:00 pm - 1:45 pm
Applying Non-Traditional ILI Technology to Challenging Pipeline Segments for Transmission Integrity Management

This presentation will provide an overview of 12 projects PG&E has used for emerging non-traditional ILI technologies, which are increasingly important to the pipeline industry, to perform integrity assessments. Additionally, a review of one 20” inspection conducted with a robotic tool through a hot-tap on an operating pipeline will be highlighted. (Coauthors: J. Janvier, PG&E; R. Lee, Pipetel Technologies)

Rob Liddicoat
Lead Project Manager, Non-Traditional ILI
Gas Transmission Systems, Inc.

1:55 pm - 2:40 pm
A Novel ILI Technology to Determine Pipe Grade for MAOP Validation

The maximum allowable operating pressure (MAOP) can be calculated using three parameters: wall thickness, pipe outer diameter, and pipe specified minimum yield strength (SMYS). In-line inspection can be used when one or more of these parameters is unknown. This presentation features the case study of a novel technology enabling a pipeline operator to determine the SMYS parameter supporting MAOP calculation.

Christopher De Leon
Manager, Products and Services
ROSEN

2:50 pm - 3:20 pm
In-Line Inspection and Non-Destructive Evaluation for Positive Material Identification

This presentation will discuss in-line inspection (ILI) and non-destructive evaluation (NDE) technologies to identify and locate changes in pipeline characteristics. Similar pipe segments can be binned and evaluated in the ditch using NDE to determine yield strength/tinsel strength and carbon equivalency. This can all be done while pipeline is in operation and non-destructive.

Lloyd A. Pirtle
Senior Sales Representative, Integrity Services
T.D. Williamson, Inc.

Track E7

1:00 pm - 3:20 pm
Underground Storage

Presiding: Craig Johnson
Gas Storage Operations Manager
Consumers Energy Co.

1:00 pm - 1:45 pm
Ground Deformation over Storage Sites: The Use of InSAR with Examples From Salt Domes and Depleted Reservoirs

This presentation will discuss how ground deformation over gas storage sites can be used to constrain geomechanical models with the aim of characterizing reservoir properties and potentially increasing the volume of gas that can be stored. The presentation will also demonstrate how advanced InSAR approaches can process satellite radar data to precisely measure ground movement with a high density of measurement points. (Coauthor: A. Higgs, TRE Canada)

Giacomo Falorni Ph.D.
Operations Manager
TRE Canada Inc.

1:55 pm - 2:40 pm
Continuous Inventory Monitoring in Storage Caverns using Downhole Tools

This presentation will cover the use of real-time pressure and temperature data acquired from downhole gauges to continuously monitor inventory in storage caverns. The use of this data to conduct cavern sizing analysis and mechanical integrity verification will also be discussed.

Steven A. Heath
Manager, Storage Integrity and Inventory Verification
Spectra Energy Corp.
Reservoir Simulation is important to understand the overall limits and capability of a gas storage reservoir. This presentation will highlight some of the common issues in gas storage reservoir simulation and present useful techniques for overcoming these issues.

**Chuck Weinstein**
NITEC LLC

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**Track F1**

**3:50 pm - 5:30 pm**

**Environmental Management**

*Presiding: Peter Harley*
Environmental Manager, New England National Grid

**3:50 pm - 4:35 pm**

**Lessons Learned - Environmental Planning for Linear Construction Projects (panel)**

Panel presenters will share lessons learned for timely permitting and ensuring regulatory compliance while planning for and managing extensive pipe replacement projects. Learn how to coordinate mark-outs and road-opening permits in multiple municipalities, screen for contaminated sites and wetlands, review PCB characterization data, and collect hundreds of samples...all in a 2-week period! But you’re not done yet - planning includes soil classification (residential clean, non-hazardous, and hazardous), coordinating soil and water disposal, erosion control plans and more. Don’t reinvent the wheel – come learn from your peers.

*Moderator: Pamela A. Lacey*
Senior Managing Counsel, Environment
American Gas Association

**Panelists:**

*Anne K. Davis*
Environmental Compliance Manager, Burlington Gas & Appliance Service
Public Service Electric and Gas Co.

*William A. Elmer*
Engineering Operations Manager
Public Service Electric and Gas Co.

*Peter E. Harley*
Environmental Manager, New England National Grid
Track F2

3:50 pm - 5:30 pm
Underground Storage

Presiding: Craig Johnson
Gas Storage Operations Manager
Consumers Energy Co.

3:50 pm - 4:35 pm
Spectroscopy Measurement of Hydrocarbon Properties
This presentation will discuss spectroscopy in general covering the different optic types and how it can and has been used to measure hydrocarbon properties.

Paul Little
Founder and CTO
JP3 Measurement

4:45 pm - 5:30 pm
Clamp-on Gas Storage Flow Measurement
Gas Storage operations has used clamp-on ultrasonic metering for a number of applications. This presentation will cover the principles of ultrasonic metering and presents specific applications for the technology.

Izzy Rivera
Director, Technical Operations
Flexim Americas Corp.

Track F3

3:50 pm - 5:30 pm
Field Operations

Presiding: Paul Pirro
Manager, Technical Services
Public Service Electric and Gas Co.

3:50 pm - 4:35 pm
Restoration of Service Following Floods - An Appliance Impact Perspective
This presentation deals with the challenges associated with floods that operators throughout the industry face, especially assessment of their impacts for restoration of service. National Grid in conjunction with the Gas Technology Institute conducted a comprehensive study to identify risks associated with appliances that may have been exposed to flood water.

William Liss
Managing Director, End Use Solutions
Gas Technology Institute

Robert D. Wilson
Director, Pipeline Safety & Compliance
National Grid

4:45 pm - 5:30 pm
In response to industry needs, CSA Group has published these two valuable standards. The presentation will cover background on the committees, development process, key elements of the standards, and the importance of following the requirements, as well as an overview of the standards’ role in Canada’s regulatory system. (Coauthors: S Capper, CSA Group; B. Lamond, Spectra Energy)
Program - Thursday, May 21

Track F4

3:50 pm - 6:05 pm
Transmission Measurement

Presiding: Robert Smith
Engineering Manager
New Mexico Gas Co.

3:50 pm - 4:35 pm
Comparisons of Natural Gas Orifice Meter Calculations using 2012 and 1992 U.S. Standards

Research since 1992 has led to the publication in 2012 of new United States standards for orifice meter calculations. The principal change is the use of a new equation for the quantity known as the expansion factor. This presentation will review comparisons of natural gas orifice meter calculations for the 2012 and 1992 US standards for permissible ranges of orifice meter sizes and operating conditions where differences between the 2012 and 1992 US standards are greatest. These comparisons should be useful for selection of orifice plate bore diameters to achieve desired differential pressure operating ranges.

Stephen L. Starling
Starling Associates, Inc.

Kenneth E. Starling
Starling Associates, Inc

4:45 pm - 5:30 pm
The Portable Clamp-On Ultrasonic Meter: A Tool for Gas Pipeline Operators

Promigas will provide an informative description of a Clamp-On ultrasonic meter used to calculate volumes effectively delivered at natural gas stations. Results and lessons learned from two practical cases will be shared during the presentation.

Carlos J. Castano
Profesional de Operaciones
PROMIGAS S.A., ESP

5:35 pm - 6:05 pm
Identifying Gas Ultrasonic Measurement Problems Using Advanced Techniques

The ability to alert a client when problems occur with the ultrasonic meter has helped reduce unaccounted-for gas (UAF) for many customers. However, systems may monitor only the USM diagnostics and do little, if anything, to verify that all other measurement devices—such as transmitters, flow computer and gas chromatograph—are working correctly. This presentation will show examples of how a system that monitors the gas USM, flow computer, transmitters, and gas chromatograph has identified problems that in the past would most likely go undetected. (Coauthor: E. Hanks, CEESI)

John R. Lansing
Vice President, Global Operations
Colorado Engineering Experiment Station Inc.

Randall McDaniel
Sr. Project Specialist
Atmos Energy Corp.

Track F5

3:50 pm - 5:30 pm
Safety

Presiding: Denise Kennedy
Safety Consultant
Piedmont Natural Gas Co., Inc.

3:50 pm - 4:35 pm
Contractor Safety Learning Lounge

4:45 pm - 5:30 pm
Contractor Safety Learning Lounge - cont’d
Track F6

3:50 pm - 5:30 pm
Transmission Pipeline Operations/Gas Utility Management

Presiding: Mary Bartholomew
Manager, Engineering Staff
Southwest Gas Corp.

3:50 pm - 4:35 pm
Geo-Hazard Identification and Assessment for Gas Pipelines

Geo-hazards represent complex environmental risks to a pipeline. This presentation features a novel GIS-based, multi-criteria approach for determining the location and significance of combined geo-hazard threats along a pipeline. A case-study is presented for a major gas operator in New Zealand. (Coauthors: A. Gharibi, S. Ruik Beyhaut - ROSEN Integrity Solutions)

Dr. Otto Huisman
Global Manager, Projects
ROSEN Integrity Solutions

4:45 pm - 5:30 pm
Pipeline Safety Regulatory Update

John Gale
PHMSA / Office of Pipeline Safety
U.S. Department of Transportation

Track F7

3:50 pm - 5:30 pm
Construction & Maintenance/Engineering

Presiding: Gary Hebbeler
General Manager, Gas Field & Systems Operations
Duke Energy Corp.

3:50 pm - 4:35 pm
Advanced Leak Detection Technology Implementation Planning at CenterPoint Energy

CenterPoint Energy evaluated advanced leak detection technology to increase leak survey effectiveness and enhance pipeline safety. A cross-functional team completed a comprehensive planning effort including multiple field tests, process and systems assessment, cost modeling, regulatory strategy, implementation planning, and efficiency improvement pilots to prepare for deployment across six jurisdictions. (Coauthors: J Goetzman, CenterPoint Energy; M. Menzie and A. Ganesan, PwC)

Tal R. Centers Jr.
Vice President, System Integrity & Operations Support
CenterPoint Energy

4:45 pm - 5:30 pm
How Much Longer Will Regulators Accept Highlighted Maps?

Leak survey has been tracked by highlighting maps for many years. And lost maps, missed areas, and a lack of proof that a surveyor covered the ground have eroded confidence in these records. Six utilities have implemented technology that ties GPS data to GIS to prove compliance. Is highlighting dead? (Coauthor: K. Bowers, Union Gas)

Langley Willauer
Director of Product Marketing - Utilities
Ubisense Inc.
AGA – Your Information Resource
7:15 am - 7:50 am

AGA – Your Information Resource
Join AGA and your colleagues for a hot breakfast and AGA website demonstration highlighting the resources available to AGA members, including industry documents, valuable weblinks, personalized web accounts and more!

Andrew Lu
Managing Director, Operations & Engineering Services
American Gas Association

Track G1

8:00 am - 10:25 am
Environmental Management

Presiding: Peter Harley
Environmental Manager, New England
National Grid

8:00 am - 8:45 am
Shale Gas Supply Issues - Radon & Naturally-Occurring Radioactive Material (NORM)
The clash between science-based reality and exaggerated public fears is the theme of these two presentations. One will explain why one New York legislator is proposing to regulate radon content in natural gas delivered to the city gate, and why the data show this is not the health concern some seem to think it is. Management and communications strategy will also be discussed. The second presentation provides an overview of lead210, the NORM that can impact the downstream natural gas industry – what it is, where it is found, how you can train and protect workers, and how to manage it conservatively and responsibly.

Mark Blundell
Sr. Environmental Advisor
TransCanada Corp.

William V. Slade
Project Specialist - Emerging Issues
Consolidated Edison Co. of New York, Inc.

8:55 am - 9:40 am
Climate: CO2 and Natural Gas Emissions Reductions
EPA, DOE and the White House have been busy implementing the President’s Climate Change Strategy, including EPA's 111(d) rule for power plants and a wide variety of natural gas emission reduction initiatives. Come hear about the carbon rules, and the latest on plans for methane leak regulations, voluntary programs such as EPA’s Gold Star certification program, and new scientific studies that provide a better estimate of current methane emission levels.

Pamela A. Lacey
Senior Managing Counsel, Environment
American Gas Association

9:50 am - 10:25 am
AGA PCB Management Guidelines & EPA Regulatory Update
The presentation will provide an update on the EPA’s pending PCB rulemaking addressing the continued “use” of PCBs in natural gas systems, including recent feedback from EPA regarding the likely scope of any changes. The proposed PCB rule is due to be published around September 2015. The presentation will also review the status of an ongoing AGA member project to develop voluntary PCB management guidelines for natural gas distribution and transmission companies. The guidelines are being developed as a preemptive measure to help EPA better understand how the industry is complying with the complex 1998 regulatory amendments before finalizing any new regulations.

John P. Woodyard P.E.
AGA Consultant
Flood emergency planning is an increasingly important part of a gas service provider’s planning strategy. The Northeast U.S. recently witnessed significant challenges from Sandy and other events. Recognizing this challenge, the Northeast Gas Association, in partnership with the AGA and SGA, organized a series of workshops that brought together experts from across the U.S. to share experiences and lessons learned. This presentation captures the learnings from these workshops and includes risk assessment, design considerations, preparation and recovery best practices. (Coauthor: A. Peterson, NYSEG)

**Daniel J. Dessanti**
Director, Operations Services
Northeast Gas Association

A significant component of future pipeline risk is set when the pipe is installed. A risk-based approach to managing pipeline installations based on the PAS-55 Asset Management standard is presented. It addresses infant mortality failures and ultimate operating lifetime of the pipeline. (Coauthors: W. Bryce, W. Luff, K. Oliphant - JANA Corp.)

**Joe Medina**
Managing Director
GTS, Inc.

At 9:50 am, Joe Medina will present "The Benefit of Pipeline Centerline Surveys." Pipeline centerline surveys acquire a tremendous amount of valuable data for operators’ use. Centerline accuracy allows for a more accurate determination of class locations and HCAs. Data representing possibly harmful attributes (e.g., utility poles, trees, buildings,) are also gathered. This presentation will assist in optimizing the survey data acquisition and data use. (Coauthor: J. Allen, Novara)

**Patrick Vibien**
Principal Consultant, Pipelines
JANA Corp.

At 8:55 am, Patrick Vibien will present "Managing Risk in Pipeline Installations."
Managing risk and uncertainty are often central to the utility construction business. Util-A-Risk is an assessment tool designed to help identify risk factors, to evaluate the likelihood, impact and consequences of them, and facilitate the development of a risk management plan during the design-to-construction phase of gas distribution projects.

**Jeffrey Sedillos**
Vice President, Operations
SiteWise Corp.

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**Track G4**

**8:00 am - 10:25 am**

**Transmission Measurement**

*Presiding: John Lansing*
Vice President, Global Operations
Colorado Engineering Experiment Station Inc.

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

**Installation Effects on Ultrasonic Flow Meters**

This presentation will compare the results of the tests obtained under reference installation conditions to those obtained from the ISO 17089 / OIML R137 perturbation tests conditions to determine if the meter shifted more than what is allowed or desired.

*(Coauthors: Jan G. Drenthen & Hilko den Hollander, Krohne CTProducts)*

**Peter G. Kucmas**
KROHNE Oil & Gas LLC

**8:55 am - 9:40 am**

**Ultrasonic Meters on a Compact Variable Pressure Metering Station**

A new type of compact metering station with variable pressure has recently been developed in France. The CRIGEN performs very wide tests on two different ultrasonic meters in different configurations, such as: downstream a pressure regulator or a double out-of-plane bend, on a compact metering station. The aim of this work is to establish a correlation between the diagnostic parameters, the installation configurations, and the metering error of ultrasonic meters.

**Fares BEN RAYANA**
Project Manager
CRIGEN—GDF SUEZ

**9:50 am - 10:25 am**

**Testing of Modified Upstream Configuration for Gas Ultrasonic Meters**

The presentation will review testing done to verify modified upstream piping used in USM meter assemblies. Shortened piping and new flow conditioning technologies were tested in extreme perturbations.

**Martin W. Schlebach**
Director, Global Business Development, Ultrasonics Emerson Process Management - Daniel Measurement & Control
Program - Friday, May 22

Track G5

8:00 am - 10:25 am
Construction & Maintenance

Presiding: Gary Hebbeler
General Manager, Gas Field & Systems Operations
Duke Energy Corp.

8:00 am - 8:45 am
Improved Protection and Safety for Aboveground Meter Sets

Operations Technology Development (OTD) has focused efforts to develop a device to reduce the risk associated with outside forces to meter sets. The development of a “breakaway” fitting can reduce the risk of gas leaks, fire, property damage and possible injury caused by outside forces, such as vehicular damage, impacting and damaging the meter set. This product is designed to result in increased safety for homeowners and enhance the overall safety for the delivery of natural gas.

Dennis R. Jarnecke
R & D Manager
Gas Technology Institute

8:55 am - 9:40 am
Who Will Do the Work: Assessing the Capacity of Gas Distribution Contractors to Tackle the Growing Backlog of Gas Distribution Replacement Work

Continuum will provide a picture of the current capacity of contractors to meet gas distribution replacement demand along with a forecast indicating where and when this demand will exceed capacity. Implications of this shortage in supply, for both contractors and utilities, will be discussed along with potential solutions to the challenge.

Mark Bridgers
Principal
Continuum Advisory Group

Glyn Hazelden
Senior Consultant
Continuum Advisory Group

9:50 am - 10:25 am
Ethane Detection Using Infrared Absorption Spectroscopy Technology

Ethane detection is a key element to determining the presence of natural gas versus naturally occurring methane. This new technology was developed through research at GTI and allows fast identification of pipeline gas in very low concentrations of gas.

J. Scott Kleppe
COO & President
Sensit Technologies

Track G6

8:00 am - 9:40 am
Gas Utility Management/Construction & Maintenance/ Gas Control

Presiding: Andrew Lu
Managing Director, Operations & Engineering Services

8:00 am - 8:45 am
Partnering in Damage Prevention

Atmos Energy and Heath Consultants will discuss the successful implementation of an underground utility locating / damage prevention program.

Robert Botello Jr.
Sales Consultant
Heath Consultants Incorporated

Blaine Cadieu
Field Services Manager
Heath Consultants Incorporated

Peter Pedersen
Manager, Compliance
Atmos Energy Corp.

8:55 am - 9:40 am
SCADA - A Company’s Perspective on a First Time Implementation with a Hosted Solution

CoServ Gas implemented their first SCADA system in 2014. They elected to a fully hosted system which in turn was the manufacturer’s first hosted implementation. This presentation will go over the challenges and successes in both parties implementation of a hosted solution as well as touch on the efficiencies CoServ has gained after the implementation.

Paul Kennedy
Director of Gas Operations
CoServ