5th Annual
Pipeline Integrity Management & Maintenance
Forum
Understanding the Challenges Faced By Pipeline Operators and Offering Innovative and Practical Solutions

London, UK
22nd–25th March 2011

In the Chair:
Mike Kirkwood
Pipeline Integrity Manager
TDW

Durga Murti
Superintendent Asset Integrity Division
Chevron

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Superintendent Asset Integrity Division
Chevron

 EXPLOIT the Full Potential of Pipeline Infrastructure and MINIMISE Operational Issues

Best in Class Inspection and Maintenance Strategies

Attending this Premier marcus evans Forum Will Enable You to:
• Learn about the latest pipeline life-extension strategies
• Benefit from expert opinion on how to control corrosion and limit its impact on onshore and offshore infrastructures
• Benchmark your Pipeline Integrity Management System (PIMS) against your competitors
• Review the latest regulations and requirements for the transportation of CO₂
• Gain valuable insight into the latest advancement in black powder management

Learn from Key Practical Case Studies:
• Learn how Chevron assures productive pipeline operations
• Capitalise from ADCO’s experience with risk assessment and reliability analysis
• Profit from Eni’s knowledge of CO₂ transmission pipeline infrastructure
• Analyse GRTgaz’s methodology for the rehabilitation of aging pipelines
• Explore DNV’s best practices and methods for pipeline requalification

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marcus evans Expert Speaker Panel:

Mike Kirkwood
Pipeline Integrity Manager
TDW

Mohamed Daoud
Manager Project Quality
ADCO – Abu Dhabi Company for Onshore Operations

Carlo Maria Spinelli
Technical Manager
Eni

Asle Venas
Director, Offshore Pipelines Segment
DNV

Durga Murti
Superintendent Asset Integrity Division
Chevron

Willem Coppoolse
Head of Capacity Development Transmission Storage and LNG
GDF Suez

Mike Billio
Process Integrity Leader
HSE

Oyvind Omland
Senior Engineer
DNV

Ken Lax
Technical Director
Corroconsult

Andrew Jackson
Managing Partner and Head of Pipelines and Utilities
Fisher German LLP

Markus Brors
Executive General Manager
Rosen

Patrick Pelle
Managing Director, Region Val de Seine
GRTgaz

Mylene Poitou
Head of Dispatching and Development Department, Region Val de Seine
GRTgaz

Samir Akel
Consultant
GRTgaz

Frits Dodderema
CEO
Stopaq

Markus Buetchler
Managing Director
SGK – Swiss Society for Corrosion Protection

Dr. Henry Tan
Senior Lecturer Safety & Reliability Engineering
University of Aberdeen

Gert Jan Heerens
Sr. Business Developer
Monitoring Systems
Oil & Gas
TNO Science & Industry

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Including:
Half Day Interactive Pre-Conference Workshop:
Pipeline Integrity and Flow Insurance
MENA Focus Day

In the Chair:
Asle Venas
Director, Offshore Pipelines Segment
DNV

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Superintendent Asset Integrity Division
Chevron
Half Day Interactive Pre-Conference Workshop

22nd March 2011

PIPELINE INTEGRITY AND FLOW INSURANCE

Led by:
Gert Jan Heerens
Sr. Business Developer
Monitoring Systems Oil & Gas
TNO Science & Industry

13:30 Registration and Coffee

14:00 Opening Address from the workshop Workshop Leader

14:10 Inspection and Monitoring of Pipeline with Ultrasonics
- Usage of new ultrasonic simulation to develop weld TOFD inspection procedures
- The value of the POD-curve. Probability of detection-curve: an inspection technique
- Usage of guide wave technology for pipeline inspection
- Localisation and sizing with guided waves
- Remote corrosion monitoring with guided waves
- Case: corrosion under supports

15:50 Coffee Break

16:00 Pipeline Operational Issues
- Design issues: overcoming pulsations and vibrations generated by internal flow
- Acoustic evaluation of risers
- Flow induced pulsations at T-joints, chokes, etc
- Flow induced forces due slugging flow
- Scraping and ultrasonic pigging
- Prevention of wax deposition and hydrate formation
- Usage of inhibitors for corrosion control

17:00 Closing Remarks from the Workshop Leader and End of Workshop
23rd March 2011

08:30 Registration and Coffee

09:00 Opening Address from the Chair  
Asle Venas  
Director, Offshore Pipelines Segment  
DNV

09:10 **Opening Address: Structural Integrity Management – Adopting the Right Risk-Based Mitigation Strategy**  
- Securing immediate repair prioritisation  
- Extending operations safely beyond original design life  
- Implementing a systematic managed approach to defects, repairs and replacement  
- Developing effective pipeline response schemes: corrosion control  

Dr. Henry Tan  
Senior Lecturer Safety & Reliability Engineering  
University of Aberdeen

10:30 Morning Coffee and Networking Break

11:00 **Key Note Address: Life Extension and Requalification of Offshore Pipelines – Why and How**  
- Drivers for extended life or new mode of operation  
- Safety securing a second life for ageing assets  
- Guidelines, best practices and methods for requalification  
- Some practical examples and case studies  

Øyvind Omland  
Senior Engineer  
DNV

12:20 **Ensuring Safe Operations and High Productivity – Pipeline Protection**  
- Overcoming traditional limitations in pipeline inspection  
- Managing oil and gas pipeline infrastructures – regulatory, public and environmental concerns  
- Promoting a reliability culture across the company

Mike Billio  
Process Integrity Leader  
HSE

13:00 Luncheon

14:00 Coffee and Networking Break

**CORROSION MITIGATION SYSTEMS**

14:30 **Managing Pipeline Integrity by Predicting and Mitigating HVAC Interference**  
- Exploring the latest technical developments: Cathodic Protection (CP) is moving towards the numerical simulation and remote monitoring  
- Achieving a reliable and cost effective design of CP system  
- Avoiding severe environmental and economic risks through the correct Advanced Corrosion (AC) mitigation strategy

Markus Buetchler  
Managing Director  
SGK – Swiss Society for Corrosion Protection

15:00 **Panel Discussion: Choosing Cost Effective Materials and Accountable Control Methods**  
- Discussing material selection to minimise risks  
- Avoiding sour corrosion  
- Understanding the importance of material selection related to the environment and potential corrosion threats  
- Debating the benefits of a cost effective long-term strategy  
- Ensuring a long-term pipeline life cycle  

**Moderator:** Frits Doddema  
CEO  
Stopaq  

**Panellists:**  
Markus Buetchler  
Managing Director  
SGK – Swiss Society for Corrosion Protection  

Willem Coppoolse  
Head of Capacity Development Transmission Storage and LNG  
GDF Suez  

Øyvind Omland  
Senior Engineer  
DNV  

Dr. Henry Tan  
Senior Lecturer Safety & Reliability Engineering  
University of Aberdeen

16:10 Afternoon Tea and Networking Break

16:40 Closing Remarks from the Chair and End of Day One
Conference Day Two

24th March 2011

08:30 Registration and Coffee

09:00 Opening Address from the Chair
   Mike Kirkwood
   Pipeline Integrity Manager
   TDW

REPAIR AND REHABILITATION

09:10 Opening Address:
   New Developments in In-Line Inspection (ILI):
   Using Spiral Magnetic Flux Leakage Techniques
   • ILI tools based on Magnetic Flux Leakage (MFL)
   • Overcoming limitations: new TDW Spiral MFL tool
   • Looking at the concept and assessing the results
   Mike Kirkwood
   Pipeline Integrity Manager
   TDW

09:50 Case Study:
   Advanced Life Prediction and Performance Assessment Methods
   • Increasing reliability of existing pipelines through cost effective measures
   • Evaluating the asset life-cycle phases and integrity management parameters
   • Enabling accurate life cycle cost estimates
   Patrick Pelle
   Managing Director, Region Val de Seine
   GRTgaz
   Mylene Poitou
   Head of Dispatching and Development Department, Region Val de Seine
   GRTgaz
   Samir Akel
   Consultant
   GRTgaz

10:50 Morning Coffee and Networking Break

11:20 Interactive Round Table Discussion:
   External Corrosion and Pipeline Cathodic Protection (CP)
   • Using inhibitors to protect the pipeline
   • Testing methods to ensure CP effectiveness
   • Analysing the relationship between AC corrosion and CP
   • Enhancing pipeline performance
   Frits Doddema
   CEO
   Stopaq
   Ken Lax
   Technical Director
   Corroconsult

DESIGN AND MATERIAL SELECTION

12:20 Doing it Right the First Time: Seamless Data Collection, Analysis and Integration During Pipe Manufacturing and Pipeline Construction Builds the Comprehensive Foundation for Future IM Assessments
   • Pipe tracking solution from production to construction
   • Ensuring the integrity during transportation and storage
   • On the spot data collection and the benefits for future integrity management decisions
   • Transition from baseline assessments to ongoing integrity assessment
   Markus Brors
   Executive General Manager
   Rosen

13:00 Luncheon

14:00 Coffee and Networking Break

NEW GENERATION PIPELINES

14:30 Case Study:
   CO2 Transmission Pipeline Infrastructure: Challenges and Opportunities
   • Reviewing technical issues for the large scale deployment of pipelines
   • Exploring current pipeline standards: moving forward
   • Assessing the needs for CO2 transmission infrastructure: CCS pipeline requirements
   • Eni’s experience
   Carlo Maria Spinelli
   Technical Manager
   Eni

15:10 Panel Discussion:
   Ensuring a Well Designed Pipeline Integrity Management System
   • Conducting baseline inspections
   • Planning your strategy: safety and integrity at the top of your agenda
   • Regulation developments: increasing the opportunities for PIMs
   Panellists:
   Markus Brors
   Executive General Manager
   Rosen
   Patrick Pelle
   Managing Director, Region Val de Seine
   GRTgaz
   Mike Kirkwood
   Pipeline Integrity Manager
   TDW

15:50 Afternoon Tea and Networking Break

16:20 Closing Remarks from the Chair and End of Day Two
25th March 2011

08:30 Registration and Coffee

09:00 Opening Address from the Chair
   - Durga Murti
   - Superintendent Asset Integrity Division
   - Chevron

BLACKPOWDER MANAGEMENT STRATEGIES

09:10 Black Powder in Sales Gas Transmission Pipelines
   - Black powder chemistry – formation and composition
   - Examining the international industry experience with black powder
   - Black powder impacts
   - Management strategies: mitigation and removal
   - Mike Kirkwood
   - Pipeline Integrity Manager
   - TDW

OPTIMISING PIPELINE INTEGRITY MANAGEMENT IN THE MENA REGION

10:10 Case Study:
   Designing for Optimal Pipeline Functionality
   - Understanding technical design for integrity
   - Overcoming challenges on new pipeline project management
   - Aligning the different phases of the project to ensure future pipeline integrity
   - Minimising construction challenges
   - Mohamed Daoud
   - Manager Project Quality
   - ADCO – Abu Dhabi Company for Onshore Operations

11:10 Morning Coffee and Networking Break

11:40 Case Study:
   Assuring Functionality and Productive Pipeline Operations
   - Governing factors in profitable pipeline operations
   - Understanding available tools:
     - Fitness For Service Analysis (FFS)
     - Risk Based Analysis (RBA)
   - Analysing applicable codes and practices for FFS and RBA
   - Current business practices and optimal trade-off between FSS/RBA
   - The best solution
   - Durga Murti
   - Superintendent Asset Integrity Division
   - Chevron

12:40 Panel Discussion:
   Reaping the Benefits of Preventative Maintenance Strategies
   - Debating how to minimise risk of failure
   - Solutions to cracking localisation
   - Discussing how to ensure safe operations and productivity
   - Detecting and eliminating defects and anomalies
   Panellists:
   - Durga Murti
   - Superintendent Asset Integrity Division
   - Chevron
   - Mohamed Daoud
   - Manager Project Quality
   - ADCO – Abu Dhabi Company for Onshore Operations
   - Mike Kirkwood
   - Pipeline Integrity Manager
   - TDW

13:10 Closing Remarks from the Chair and End of Conference

13:20 Luncheon

Business Development Opportunities:
Does your company have services, solutions or technologies that the conference delegates would benefit from knowing about? If so, you can find out more about the exhibiting, networking and branding opportunities available by contacting our sponsorship division.

James Driscoll
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Dr. Markus Büchler

Experience
CEO: 4/06–present
Swiss Society for Corrosion Protection, Zürich, Switzerland; Participating in various EN working groups and heading several research projects related to cathodic protection and ac-corrosion Head of Research and Development: 6/00–03/06
Swiss Society for Corrosion Protection, Zürich, Switzerland; Responsible for numerous research and development projects related to the durability of materials and corrosion.

Postdoctoral Associate: 8/98–5/00
Corrosion Research Center, University of Minnesota, Minneapolis, MN, USA; Development of microscopic techniques for in-situ high resolution investigation of electrochemical processes and characterization of microelectronic devices.

Ph.D. Student: 1/95–1/98
ETH-Zürich, Switzerland; Thesis title: Experimental modeling of passive films on iron; Investigation of semiconductive properties of passive films, synthetic iron oxides, and hydroxides in combination with a new light reflectance technique.

Functions
President of commission 2 (external corrosion) of CECOR: 5/09–present

Gert-Jan Heerens

is Business Development Manager Instrumentation Oil and Gas Industry at TNO. He studied Mechanical Engineering in Utrecht in the Netherlands B.Sc. After his study he has been working in industrial research and development of instrumentation and process equipment. First as a designer and later as a system engineer and project manager being involved in both national and international projects. Mr. Heerens worked for the paper industry, consumer electronic industry, semiconductor industry and the process industry. Companies he worked for are Ferag AG, Philips, Stork N.V. and FCI Electronics. The past 13 years he has worked for TNO. His broad knowledge of different technologies provides him firm basis for his current position as a Business Development Manager Instrumentation for the Oil and Gas Industry. Mr. Heerens contributed to a number of patents and publications.

• Insight in the technology and outlining possible fields of application.
• Case study non-accessible corrosion under supports.

Mylène Poitou

Head of Dispatching and Development Department, Région Val de Seine GRTgaz

Mylène Poitou is in charge of the monitoring and the development of the regional networkas well as the relationships with the industrial customers; Previously, she had various experiences as project manager and team manager in gas infrastructure. From 2006 to 2009, she was the Executive Secretary of Gas Infrastructure Europe, the European association representing gas infrastructure operators in Europe.

Mike Billio

a Chartered Chemist and Chartered Scientist, is the head of the QRA, Fire & Explosion Specialists in HSE’s Offshore Safety Division, having recently returned to OSD after a 12 month secondment to HSE’s Emerging Energy Technologies Team. Mike joined HSE following 20 years in industry where he spent several years commissioning major projects. In HSE’s Major Accident Hazard Assessment Unit Mike became HSE’s national topic specialist for high pressure gas pipelines, high & low pressure gas storage and low pressure distribution, producing many papers on the various aspects of risk assessment and provided substantial input in to the development of Statutory Instruments such as the Pipeline Safety Regulations. Within the EET team Mike provided its technical resource across all technologies including carbon capture. This required him to engage with stakeholders, identify and develop research, collaborate with other government and non-government organisations, industrial stakeholders and researchers. His participation with such bodies resulted several publications including a collaborative paper that was awarded Institute of Chemical Engineering (IChemE) Safety and Loss Prevention Subject Group for the ‘most meritorious publication on the topic of safety and loss prevention’ in an IChemE publication.

Patrick Pelle

Managing Director, Région Val de Seine GRTgaz

Patrick Pelle is GRTgaz Region Val de Seine general manager. He is in charge of 25 per cent of the gas transmission network of GRTgaz, covering the region of Paris and Normandy. He is also the President of the regional French Gas Association in the region of Paris. He was previously in charge of the expertise in cathodic protection and in metallurgy for gas equipment within the former Gaz de France.

Samir Akel

Network Expert/Consultant GRTgaz

Samir Akel has 20 years experience in the field of Gas Industry: 8 years of R&D in gas distribution and transmission, 2 years in Gaz de France International business (Canada), 7 years within the French gas distribution operator (GrDF) and 3 years within the French gas transmission operator (GRTgaz). His main activities were related to pipeline integrity, asset management and risk assessment. During the last three years, he contributed to GRTgaz Policy on pipeline inspection/rehabilitation/replacement.

Frits Doddema

CEO Stopaq

Drs. JF Doddema, CEO of Stopaq. A producer of patented visco-elastic coating systems for critical infrastructural assets. Frits is active in the corrosion prevention industry since 1998. He worked for Carboline in Central and Eastern Europe. And is since 5 years with Stopaq. He holds a master in business administration. Frits is a member of the iso21809-3 fieldjoint coating working group.
Dr. Henry Tan
is a Senior Lecturer in Safety & Reliability Engineering, and Subsea Engineering, of the School of Engineering, University of Aberdeen, UK; a Guest Professor of the School of Aeronautics and Astronautics, Zhejiang University, China; and a member of the American Society for Quality. He supervised PhD and MSc students on condition monitoring, aging pipelines integrity, flexible-pipeline fatigue assessment, and corrosion inspection/monitoring techniques. Dr. Tan taught courses, such as Subsea Integrity, Explosion Engineering, Fluid Mechanics and Thermodynamics, Deformation and Fracture of Engineering Materials, Materials and Structures, Simulation in Materials, Engineering Materials Laboratory, Aircraft Structural Analysis, Mechanical Design etc. at institutions world widely including: the School of Engineering, University of Aberdeen, Scotland; International Centre for Mechanical Sciences, Udine, Italy; School of Mechanical, Aerospace and Civil Engineering, University of Manchester, England; Department of Mechanical Engineering, Louisiana State University, USA; and Department of Engineering Mechanics, Tsinghua University, China.

Carlo Maria Spinelli
was employed as a Junior researcher on pipeline integrity for Snam Rete Gas Laboratory in San Donato Milanese until 1999. Then he became the Head of the Laboratory and moved to Eni Gas & Power (San Donato Milanese) in 2003. Here he was involved in many operative projects as : The GreenStream Pipeline from Lybia to Itally in 2003-2004, SiRCoS pipeline repair system from 2004 to 2007, as well as in other R&D activities as: Eni X100 TAP Project from 2002; X80 Intermediate Pressure Eni Project from 2008. He is actually the Technology Planner for Eni Gas & Power. Carlo who is the Eni G&P official member in EPRG (European Pipeline Research Group), in GERG, in IGU he has been recently involved also in the area of CCTS (Carbon Capture Transportation and Storage) focusing on CO2 transportation by pipeline. Author of several papers mainly on High Pressure Pipeline Technology with High Grade steels has presented his works in many occasions or published on specialized magazines.

Andrew Jackson
Managing Partner
Fisher German LLP

ANDREW JACKSON is Managing Partner of Fisher German LLP, a firm of UK based Chartered Surveyors, Chairman of Fisher German Prietsner Ltd and immediate past Chairman of the Onshore Technical Panel of the Pipeline Industries Guild (of which he remains a Committee member). Andrew has been involved in the management of pipeline safe operation for over 28 years, setting up the Utilities and Infrastructure sector of that business in 1983. Fisher German holds a market leading position in pipeline third party activity management and provides services to the majority of the multi- national oil, chemical and gas companies operating high pressure onshore pipeline systems in the UK.