

Best Practices from Pipeline Integrity Management for Reducing Long Term Cost & Driving Productivity

16th – 18th of October 2019 Amsterdam, The Netherlands



SPEAKER PANEL

Andy Studman
Pipelines & Subsea Team Lead.
Pipelines Technical Authority
Shell, UK

Samir Akel Consultant Grtgaz, France

Alfred Kuhn Chief Operations Officer LIN SCAN, UAE

Sahmi O Alhajri Engineer Saudi Aramco, Saudi Arabia

Marco Henel Team Lead & Project Manager **DBI-GUT, Germany**

Brian Woods Line Integrity Engineer **TechnipFMC**, **USA**

Udeme Okure Corrosion Engineer Saudi Aramco, Saudi Arabia Gerd Füssinger Head of Piping & GIS Swissgas, Switzerland

Giuseppe Giunta Technology Authority Manager **Eni, Italy**

Anthony da Rosa Integrity Manager **Terega, France**

Cindy Dirkx
Project Manager - H2 Pipeline
Development & ILI inspections
& Independent Pipeline
Professional

Groningen Seaports & Air Liquide & Dirkx PM&S, The Netherlands

Workshop Leader

Igor Makhkin Technical Director

Associated Technology Pipeline Ltd., UK

Topics to be addressed

- Asset Integrity Management challenges of critical piping and pipelines
- Re-inspection intervals for gas transmission network
- Pipeline Integrity Management Solution
- Pipeline integrity challenges and solutions
- PIMS for hydrogen natural gas mixtures and field project for the distribution of 100% H2 in Mid-Germany
- Risk Screening concerning danger for people in the influence zone
- Effects of 2LPE coating on pipeline inetgrity
- Integrity Management of a high pressure Composite Pipeline for the transport of Hydrogen
- Impact of Microbiologically Induced Corrosion on pipeline integrity

Benefits of attending

- Meeting selected senior decisionmakers from global leading operating companies in Pipeline industry
- Learning from the selected examples of **practical approaches**
- Knowledge and expertise exchange
- Direct networking with industry decision makers in a business friendly environment

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16th of October

INTERACTIVE WORKSHOP **LED BY** Associated Technology Pipeline Ltd.

16th - 18th of October 2019 Amsterdam, The Netherlands



15:30 Registration & Welcome Coffee 👫 💻



16:00 Opening Address from the Workshop Leader Igor Makhkin Technical Director

Associated Technology Pipeline Ltd, UK

PIPELINE INTEGRITY MANAGEMENT SYSTEMS (PIMS)

Benefiting from embedding a full corporate Inline Inspection business process and logic into PIMS

- Corporate systems architecture and interactions
- ILI data, loading, alignment and pre-processing
- ILI data visualization, analysis and calculations
- Assessments and repairs
- Work Orders and ERP interaction
- Closing the business process loop

17:45- Closing Remarks from the Workshop Leader,

Coffee & Networking



Workshop Outline

Pipeline operators maintain a number of corporate systems to aid their PIM process, from corporate databases, GIS, DMS to ERP systems. Each and every one of these systems performs its own task and sits within a PIM business process. The interconnection between all those systems can be very complex. In the middle of this process sits a corporate Pipeline Integrity Management System (PIMS). The primary aim of all pipeline operators in engaging with PIMS for Inline Inspections is to aid the processing and analysis of the extensive ILI data for facilitation of decision making and further work assignment. However, ILI business process covers a vast territory of data storage, alignment, analysis, decision making and repair / assessment assignment resulting in work orders and physical work being carried out, reporting. How can an operator benefit from including all the aspects of ILI process into a single system? How having all the information and results in a single location can lead to a better, faster, simpler and more convenient way to work with ILI? Exploring the benefits of such an approach is the primary focus of our workshop.

About Associated Technology Pipeline Ltd.

ATP was established in 1998 and is a leading specialist provider of Pipeline Integrity Management software to the oil and gas industry. We are a UK based company with a global client base. We work with companies such as Enbridge, TransCanada, Gasunie, Equinor, Enagas, OMV, Net4Gas, BBL, Origin Energy and India Oil Company.

ATP's main product is PiMSlider; it is an highly-developed, comprehensive and proven off-the-shelf software solution providing an information retrieval system, an analytical system and a decision making system for any kind of complex object. The software is arranged as a set of modules by combining various areas of common functionality to build a complete system for a specific project.



17th of October Conference Day One

16th - 18th of October 2019 Amsterdam, The Netherlands



Registration & Welcome Coffee 👫 👚



9:00 Opening Address from the Chairman

PIPELINE INTEGRITY

9:10 Re-inspection intervals for gas transmission network

- In line inspection the relevant maintenance plan for gas transmission pipelines.
- This plan cannot be carried out frequently.
- Benchmarking TSOs each company has its own technical procedure and re-inspection intervals varies roughly from 5 to 20 years.
- Based on a pipeline corrosion degradation approach and its own feedback related to inspection records, this paper shows how GRTgaz managed to justify its own re-inspection intervals. This innovative approach may be considered as generic and can be used by any TSO in order either to justify or define its own re-inspection intervals, while ensuring a high level of safety/integrity of the transmission network

Samir Akel

Consultant

Grtgaz, France

Risk Screening concerning danger for people in the influence zone along high pressure natural gas pipelines

- Restrictions and method of evaluation in switzerland
- Mesures for reducing the risk curve

Gerd Füssinger

Head of Piping & GIS

Swissgas, Switzerland

Coffee and Networking Break



Pipeline Integrity Management Solution

- Vision of our fully integrated solution
- LeakNet CPM leak detection technology
- PipeLIDS Acoustic leak detection technology

Brian Woods

Line Integrity Engineer

TechnipFMC, USA

11:40 Effects of 2LPE coating on pipeline inetgrity

- Presentation of an example
- Issues faced
- Assumptions made and conclusions

Anthony da Rosa

Integrity Manager

Terega, France

12:20 Lunch, Coffee & Networking Break



14:00 Asset Integrity Management challenges of critical piping and pipelines

- Asset integrity managemement in Saudi Aramco
- Challenges for critical piping and pipelines

Sahmi O Alhajri

Engineer

Saudi Aramco, Saudi Arabia

TECHNOLOGY FOR PIPELINE MONITORING

14:40 Using free floating smart sensors for inline inspection of pipelines

- Smart sensors allows for full length pipeline inspection without interrupting the operation
- Frequent inspection possible turning it into a cost-efficient data driven solution
- Early detection of changes in the pipeline condition such as deposit formation and metal loss as well as timely detection and localization of leaks or similar hazardous conditions

Time Slot Reserved for Sponsors

SUBSEA PIPELINES

Pipeline integrity challenges and solutions

- Difficult to pig applications
- Integrity management of pipeline emergency shutdown
- valves (ESDV's)

Andy Studman

Pipelines & Subsea Team Lead. Pipelines Technical Authority

Shell, UK

16:00 Coffee and Networking Break



16:30 Integrity management of Flexible pipes

- Assessing material quality at fabrication or procurement stage
- Flexible pipe integrity management within existing pipeline
- Evaluate the specific challenges faced by operators to guarantee continued use of pipe
- Develop a replacement strategy to mitigate risks and identify potential cost and time savings

Time Slot Reserved for Sponsors

17:10 Panel Discussion

Information sharing in pipeline industry between pipeline operators

- What are the benefits
- How much data are you allowed to share
- Avoid similar problems in other companies
- How you deal with information

Closing Remarks from the Chair & Wrap up of Day One

18:00 Cocktail Reception





Booking Contact: David Schkade tel:+420 255 709 505 fax:+420 255 709 599 email: davids@prosperoevents.com



18th of October Conference Day Two

16th - 18th of October 2019 Amsterdam, The Netherlands



Registration & Welcome Coffee 8.30



9.00 Opening Address from the Chairman

PIPELINE INSPECTION

14:40 Future Developments in Gas Tranportation Smart

- Physical & Cyber security threats to facilities and pipelines
- Operational requirements in gas transport end users
- Pipeline integrity monitoring applications in different scenario

Giuseppe Giunta

Technology Authority Manager

Eni, Italy

Inspection of unpiggable pipelines

- Assessing all unpiggable pipeline
- Criterias of integrity management
- Understanding current methods of inspecting unpiggable
- Setting a approach for inspecting unpiggable pipelines for the future

Alfred Kuhn

Chief Operations Officer

LIN SCAN, UAE

10:30 Business Card Exchange and Coffee Break



Opportunity for the participants to share their contact information with each other dedicated specifically to strengthening business connections with the industry peers

11:00 Panel Discussion

Learning from Failures

- Complex pipeline problems Deterioration with time, changing conditions, external human factors
- Learning from pipeline failures thorough evaluation of lessons learnt and shared within the pipeline community
- Having focused inspection and repairs
- Employing highly skilled staff to reduce failures

PREPARING FOR FUTURE

11:40 PIMS for pure hydrogen natural & Hydrogen natural gas mixtures in transportation pipelines

Field project for the distribution of 100% H2 in Mid-Germany using plastic piping

Marco Henel

Team Lead & Project Manager

DBI-GUT, Germany

12:20 Lunch, Coffee & Networking Break



- 14:00 IM of a high pressure Composite Pipeline for the transport of hydrogen - experiences during the preparations and design of the first project that will use a non-steel 42 bar system to transport hydrogen.
 - Project details and material properties
 - Approval and certification
 - Relevant Legislation and Standards and applicability for non-steel pipelines
 - Design specifications and challenges
 - Business Case
 - Inspection philosophy how to provide information on future integrity of the pipeline
 - Discussion: Which gaps do we see and how could we fill them?

Cindy Dirkx

Project Manager - H2 Pipeline Development & ILI inspections & Independent Pipeline Professional

Groningen Seaports & Air Liquide & Dirkx PM&S The Netherlands

CORROSION MANAGEMENT

- 14:40 Impact of Microbiologically Induced Corrosion on pipeline integrity - A case study of Arab Heavy Crude Oil Pipeline
 - Protection of structures against microbiologically induced corrosion become very critical
 - Use of protective coatings with anti-bacterial agents to impede corrosion
 - Having pre-charecterisation of MIC micro organisms in surrounding areas
 - Use of corrosion inhibitors to slow down corrosion reaction

Udeme Okure

Corrosion Engineer

Saudi Aramco, Saudi Arabia

15:20 Closing Remarks from the Chair & Wrap up of Day Two

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Sales Contract

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David Schkade

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16th - 18th of October 2019

Amsterdam, The Netherlands



CONFERENCE: 7th Pipeline Maintenance & Integrity Management for O&G, 2019 DATES, VENUE: 16th - 18th of October 2019, Amsterdam, The Netherlands

7th Pipeline Maintenance & Integrity Management for O&G

gathers leading market players and creating a flexible and dynamic platform for most relevant experts to exchange their ideas and to network in a business friendly environment. The event is aiming to bring top Oil/Gas Companies, Pipeline Owners/Operators, Gas TSOs, Refineries etc. to brainstorm & discuss best strategies and technologies present to achieve operational excellence in maintenance and integrity management of pipelines.

Conference Venue

Hotel Name: NH Amsterdam Centre

Stadhouderskade 7, 1054 ES Amsterdam, Netherlands

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Our Operations team will be in touch with yourself for discounted accommodation rates reserved for Prospero attendees.

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software providers etc

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16th - 18th of October 2019

Amsterdam, The Netherlands

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Since 1999, LIN SCAN has been providing Pipeline Inspection and Integrity Support Services for Oil and Gas Industry globally. LIN SCAN possesses a huge fleet of tools designed for cleaning and inspection of pipelines. All equipment is designed and committed to excellence fabricated in-house and covers the full range of pipeline diameters. LIN SCAN also supplies cleaning pigs, pig traps (launchers & receivers) and provide specialised pipeline cleaning services. LIN SCAN has its corporate office established in Dubai its subsidiaries in other countries worldwide including Europe, Africa, North America, Russia and CIS, Middle East and Far East.

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KTN AS is a technology company specialized in condition assessment and maintenance/ inspection of oil and gas pipelines. With extensive experience on/offshore internationally, KTN is especially well-known for their self-propelled tethered tool inspection technology

for challenging pipelines. Different types of technologies, including ultrasonic wall thickness and crack measurement (angular beam pulse echo, TOFD and PA) and Eddy Current, and different types of propulsion elements, including bi-directional selfpropelled (crawler) and pumped modules, are available for the specialized ILI tools. KTN AS technologies are capable of inspecting pipelines with a 6» or larger diameter, and up to 12 km in length. Due to constant development, every year new technology solutions can be offered to the market.

ASSOCIATION PARTNERS



MARCOGAZ, the Technical Association of the European Natural Gas Industry, is a non-profit International Association under Belgian Law. Its permanent Secretariat is located in Brussels. Its main goal is to be the voice of the European Gas Industry regarding technical issues towards the EU Authorities.

The scope of MARCOGAZ covers any technical and related issues relevant to gas infrastructure, gas utilisation, environment, health and safety in Europe at all level of the gas supply chain i.e., transmission, distribution, storage and use.



Cedigaz is an international association dedicated to natural gas information, created in 1961 by a group of international gas companies and IFP Energies nouvelles (IFPEN). It is based near Paris. Cedigaz has members all over the world. Cedigaz' goals consist in gathering, compiling and analysing worldwide economical information on natural gas, LNG and unconventional gas in an exhaustive and critical way. The information that Cedigaz deals with touches on all activities and aspects of the gas industry (exploration, reserves, production and processing, transportation, trade, storage, distribution and consumption of natural gas). Cedigaz diffuses the information in its periodic bulletins, surveys and online databases.

Website: www.cedigaz.org



PIGGING PRODUCTS & The Pigging Products and Services Association (PPSA) was formed in 1990 and has 120+ members representing the pigging industry from over 20 countries around the world.

SERVICES ASSOCIATION representing the pigging industry from over 20 sections pigging equipment and services for PPSA plays a major role in providing information and sourcing pigging equipment and services for

the pipeline industry and responds to hundreds of enquiries each year through its web site www.ppsa-online.com. It provides a free technical information service and runs seminars on pigging.

Its aims are, To promote the knowledge of pigging by providing a channel of communication between the members themselves, and with users and other interested parties.