Pipeline Defect Assessment
Integrity Assessments

Presented by:
Susannah Turner and
Domenic Di Francesco

Location:
Penspen Office, Newcastle upon Tyne, UK

Dates:
2 days, Monday 6th – Tuesday 7th June 2016

Cost:
£1200 Per attendee

Course Objective:

- To present the available methods to assess the significance of defects in onshore and offshore pipelines.
- To provide an introduction to fracture mechanics and fatigue; and introduce fundamental analytical methods used to assess pipeline defects.

About the Course Presenters:

Susannah Turner

Susannah has over 20 years' experience in the oil and gas industry having worked in pipeline operations, consultancy and research. Her recent work has concentrated on pipeline integrity and risk management strategies. She is responsible for the delivery of technically challenging pipeline integrity, risk and reliability consultancy studies.

Domenic Di Francesco

Domenic has worked on a range of projects for numerous international operators focused on ensuring the integrity of onshore and offshore pipelines and pipework. These include holistic pipeline integrity reviews; pipeline repair studies; pipework vibration mitigation; remnant life assessments; and supporting delivery of a bespoke Pipeline Integrity Management System (PIMS), which included a 1 year secondment with the operator to help them embed new business processes. Domenic is currently working towards Chartered Engineer status with the Institute of Mechanical Engineers.

Outline Course Agenda:

- Introduction to Basic Pipeline Engineering Principles:
  - Basic pipeline design principles
  - Stresses in pipelines
  - Basic pipeline operating and maintenance parameters
  - Maintenance and inspection methods
- Introduction to Pipeline Defects – Why Pipelines Fail:
  - How safe are pipelines?
  - How often do they fail?
  - What causes pipelines to fail?
  - Pipelines risks
  - History of pipeline defect assessment
  - Why pipeline defects fail
  - Fundamental failure relationships
  - Explanation of key parameters
- How to Assess Corrosion Defects
  - Introduction to basic theory
  - Background, strength and weaknesses
  - Methods to assess corrosion
  - ASME B31.G and DNV methods
  - Interacting defects
  - Universal curves for assessing corrosion defects
- How to Assess Gouges:
  - Introduction to basic theory
  - Methods to assess gouges
  - Additional problems and concerns with gouges
- How to Assess Dents:
  - Introduction to basic theory
  - Methods to assess dents
  - Method to assess dents containing gouges
  - Problems with fatigue loading
- How to Assess Cracks:
  - Basic theory
  - The problems with cracks in pipelines
  - Environmental cracking
- How to Assess Weld Defects:
  - Welds in pipelines
  - Assessing defects in pipeline girth welds
  - Assessing non-planar defects in welds
  - The EPRG girth weld defect guidelines
  - Fatigue design of girth welds
- Risk and Integrity Management and Analysis:
  - What is risk and risk analysis?
  - Risk management methods
  - Integrity Management Programs
  - Overview of risk based methods

For further information or to book your place, please contact us at:

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