

Pipeline Pigging Operations

| Date | | (\$)Fees | |
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| 11 February -15 February 2024 | Kuala Lumpur | 3500 | Register Now |

Why Choose This Training Course?

The purpose of this training course is to present the requirements for the relevant industry practices regarding inspection and condition monitoring of pipeline systems using pigging devices, with the final goal of optimization of maintenance and efficiency of pipeline operation. The course will provide guidelines for carrying out inspection and pipeline defects and detection of potential failures due to material degradation and other operational causes. The delegates will be introduced to a risk analysis of equipment failures and available prevention and remedial technologies. Fitness for service (FFS) methodology will be introduced and explained.

This training course includes several workshops with real problems from industrial practice which will enable discussions and exchange of experiences.

The training course will feature:

- Methods for inspection and effective maintenance of pipeline systems.
- Planning and practical issues regarding pigging devices
- Data collection and analysis of smart pig NDT tests
- Development of maintenance and repair program based on inspection
- Analysis of cases studies during several workshops

What are the Goals?

By the end of this course, participants will be able to:

- Understand the requirements of industry standards for pipeline inspection:
- Carry out inspection of pipeline systems with NDT testing instrumentation
- Develop efficient maintenance programmes
- Implement technologies recommended for repairs and alterations

Who is this Training Course for?

This course is designed to benefit all levels of Technical Personnel in industry who deal with Piping System operation and maintenance:

- Plant professionals dealing with operation pipeline systems
- Engineers responsible for reliability of operation
- Engineers and technical staff in charge of inspection and condition monitoring
- Technical professionals involved in technical support and maintenance and repair
- Engineers in charge of planning of new pipelines and retrofitting old ones

How will this Training Course be Presented?

The seminar will be conducted along workshop principles with formal lectures and interactive worked examples included. The emphasis in the course will be on the explanation of all technical phenomena and providing answers to the problems that are encountered in everyday industrial practice related to inspection, maintenance, repair and alterations of pipeline systems

Each learning point will be reinforced with practical examples and video presentations that will be included in several workshops based on the team work. There will be ample opportunities for active discussion and sharing professional experiences and exchange that will help solidify the gained knowledge. All course materials will be provided to the participants.

The Course Content

Day One: Types of Pipeline Designs and Configurations

- Overview of types of pipelines in oil and gas industry
- Importance of pigging of pipelines
- Various types of pig designs based on application
- Design and operation of pig traps
- Operation of pig launching and receiving
- Workshop: Examples and solutions

Day Two: Types of Pigging Devices

- Review of pig cleaning devices
- Pigging challenges: pipe bends, tees and valves
- Pipelines with multiple diameters
- Piggability of special fittings
- Assessing of pig's performance
- Workshop: Examples and solutions

Day Three: Factors Considered in Planning of Pigging Operation

- Pipeline operation conditions: Flow rate, pressure drop, pumping power
- Fluid cleanliness: wax, debris, dirt, etc.
- Frequency of pig runs
- HSE during pigging: site safety procedures and performance control
- Environmental issues with waste handling
- Workshop: Examples and Solutions

Day Four: Smart Pigging Device Application

- Design of smart pigging devices for in-line inspection (ILI)

- Non-destructive testing with NDT
- Pipeline defects and risk of failure, criticality ranking
- Analysis of results of testing
- Fitness for service (FFS) analysis: estimate of remaining life
- Workshop: Examples and solutions

Day Five: Problems of Pig Regular Operation

- Problems with pigs in operation: stuck pig and adequate remedy
- Signaling and pig tracking instrumentation: on-shore and off-shore
- Locating and reporting of abnormal operating conditions (AOC)
- Pig inspection, maintenance and spares
- Course summary and review



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