



50% Special Discount on this course

COURSE OVERVIEW FE0190
Pipeline Inspection, Testing & Integrity Assessment
Defect Assessment in Pipelines (Practical Aspects)

Course Title

Pipeline Inspection, Testing & Integrity Assessment: Defect Assessment in Pipelines (Practical Aspects)

Course Date/Venue

September 20-24, 2020/Dukhan Hall 2, Concorde Hotel Doha, Doha, Qatar

Course Reference

FE0190

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Description



This hands-on, highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.



This is an in-depth course on the practical aspects of pipeline integrity, including corporate objectives, risk, planning integrity programs, internal inspection tools, anomaly identification and analysis, repair, coating, and pressure testing. Participants will be introduced to the technical basis for determining pipeline integrity.



This course will provide information, reinforced by case studies and exercises on pipeline defects, such as corrosion, cracking and third party damage. Methods will be discussed that can be used to make decisions on whether defects are fit for service.

The course will review the various repair techniques, their advantages and shortcomings and the logic to be followed in making repair decisions and selecting the applicable repair.

In addition, pressure testing will be studied, including an exercise based on an actual hydrostatic pressure test.



Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply the practical aspects of pipeline integrity, including corporate objectives, risk, planning integrity programs, internal inspection tools, anomaly identification and analysis, repair, coating, and pressure testing
- Analyze pipeline design, construction and maintenance vs. integrity and identify the threats to buried pipeline's integrity
- Define time dependent defects theory and differentiate between various types and forms of corrosion on basis of internal and external
- Develop integrity management program and list the integrity management strategies and internal inspection tools
- Perform external surveys, pressure and leak testing and pipeline rehabilitation and repair techniques
- Verify the integrity of an old pipeline and report quality control

Who Should Attend

This course provides an overview of the practical aspects of pipeline integrity for engineers, inspectors and for those who are responsible for the inspection, testing, integrity, defect assessment, maintenance and repair of pipelines.

Training Methodology

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Workshops & Work Presentations
- 20% Case Studies & Practical Exercises
- 30% Videos, Software & Simulators

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Fee

US\$ 3,250 per Delegate. This fee is already discounted with **50% special discount** on the original course fees of US\$ 6,500 per Delegate. The rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.




Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course.

Certificate Accreditations


Certificates are accredited by the following international accreditation organizations: -

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USA International Association for Continuing Education and Training (IACET)

Haward Technology is an Authorized Training Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 1-2013 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 1-2013 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Association for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.



Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Mr. Tom Hankins is a **Senior Inspection Engineer** with over **30 years** of experience within the **Oil & Gas, Refineries, Petrochemical** and **Power industries**. His expertise lies extensively in the areas of **Piping Inspection, Pressure Vessels Inspection, Pressure Vessels Maintenance, Pressure Vessels Repairs & Alteration, RBI Inspection, Shutdown Planning & Operations, Structural Steel Inspection, Boilers, Heat Exchangers, Heaters, Turbines, Furnaces, Tanks, Rotating Equipment, Coatings, Refractory Piping, Coker & FCC units, Pipeline, Fabrication, QA/QC auditing** and **radiation**. He is also an international expert in several codes and standards such as **API, ASNT, AMSE, ASTM, ANSI, NBIC, AWS, NFPA** and **ISO**. He is currently the **Chief Inspector** of one of the major petrochemical plant wherein he is responsible for the **RBI inspection**, shutdown planning and operation.

During his career life, Mr. Hankins has worked with numerous multi-national companies such as the **Shell, Lloyds, Intertec Moody, Petro Rabigh, Oceaneering, Worley Parsons, Weldspec Port, Proenergy, Velosi, Bechtel, Fluor, CH2MHILL, Turner Industries, Techcorr, Ventech, GE, Ensco, Caribbean Inspection & NDT Services Inc.** and **Jacobs Engineering** holding various key positions as a **Chief Inspector, API Inspector, CWI Inspector, QA/QC Manager, NDT Technician** and **Line Support**.

Mr. Hankins has a **Bachelor** degree in **General Business Studies** from **Oklahoma State University**. Further, he is a **Certified Welding Inspector (AWS), NBIC Authorized Inspector, Certified Pressure Vessel Inspector (API-510), Certified Piping Inspector (API-570), Certified Aboveground Storage Tank Inspector (API 653), Certified Refractory Inspector (API 936)** as well as a **Certified Magnetic Particle Inspection Level II (MT), Certified Radiographic Inspection Level II (RT), Certified Dye Penetrant Inspector Level II (DPI), Certified Ultrasonic Inspection and Automated Ultrasonic Inspector Level II (AUT), Certified Radiation Safety Officer, Certified Quality Management Lead Auditor** and a **Certified Instructor/Trainer**.



Course Program

The following program is planned for this course. However, the course Instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: Sunday, 20th of September 2020

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Introduction Pipeline Integrity Assessment – Practical Aspects – Course Overview • Corporate Policies • Regulation • Standard Practices
0930 – 0945	Break
0945 – 1045	Pipeline Design, Construction & Maintenance vs. Integrity Pipeline Design
1045 – 1215	Pipeline Design, Construction & Maintenance vs. Integrity (cont'd) Operation • Economics
1215 – 1230	Break
1230 – 1420	Threats to Buried Pipeline's Integrity Time Dependent • Time Independent • Stable
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day One

Day 2: Monday, 21st of September 2020

0730 – 0930	Time Dependent Defects Theory Corrosion Principles • Corrosion Thermodynamics • Corrosion Kinetics • Corrosion Rate Expressions
0930 – 0945	Break
0945 – 1045	Types & Forms of Corrosion (Internal & External) Corrosion Monitoring • Corrosion Protection (Including Cathodic Protection) • Internal Corrosion Modelling & Risk Assessment • Fatigue – Heavy Fouling/Clogging • Time Independent & Stable Factors
1045 – 1215	Integrity Management Program Development Integrity Management Strategies • Main Factors Affecting Pipeline Integrity • Integrity Management Program Development
1215 – 1230	Break
1230 – 1420	Internal Inspection Tools Types of Internal Inspection Tools • Preparing to Inspect • Data Assessment • Inspection Reports • Other Issues
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Two





Day 3: Tuesday, 22nd of September 2020

0730 – 0930	External Surveys-Pipeline Integrity & Electrical Surveys Prioritisation • Methods & Techniques • Interpretation & Use of the Results • Innovation Aspects
0930 – 0945	Break
0945 – 1045	Pressure & Leak Testing The Purpose of Hydro Test • Theory • Designing a Pressure Test • How to Conduct a Hydro Test
1045 – 1215	Practical Aspects & Case Histories Microbial Corrosion • A.C. Corrosion • Stray Current Corrosion • Stress Corrosion Cracking
1215 – 1230	Break
1230 – 1420	Pipeline Rehabilitation - Repair Techniques
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Three

Day 4: Wednesday, 23rd of September 2020

0730 – 0930	Geological Aspects Aspects Tied with the Pipeline
0930 – 0945	Break
0945 – 1045	Verifying the Integrity of an Old Pipeline A Case History
1045 – 1215	Remote Monitoring & Control of Cathodic Protection Systems
1215 – 1230	Break
1230 – 1420	Quality Control - Reporting
1420 – 1430	Recap
1430	Lunch & End of Day Four

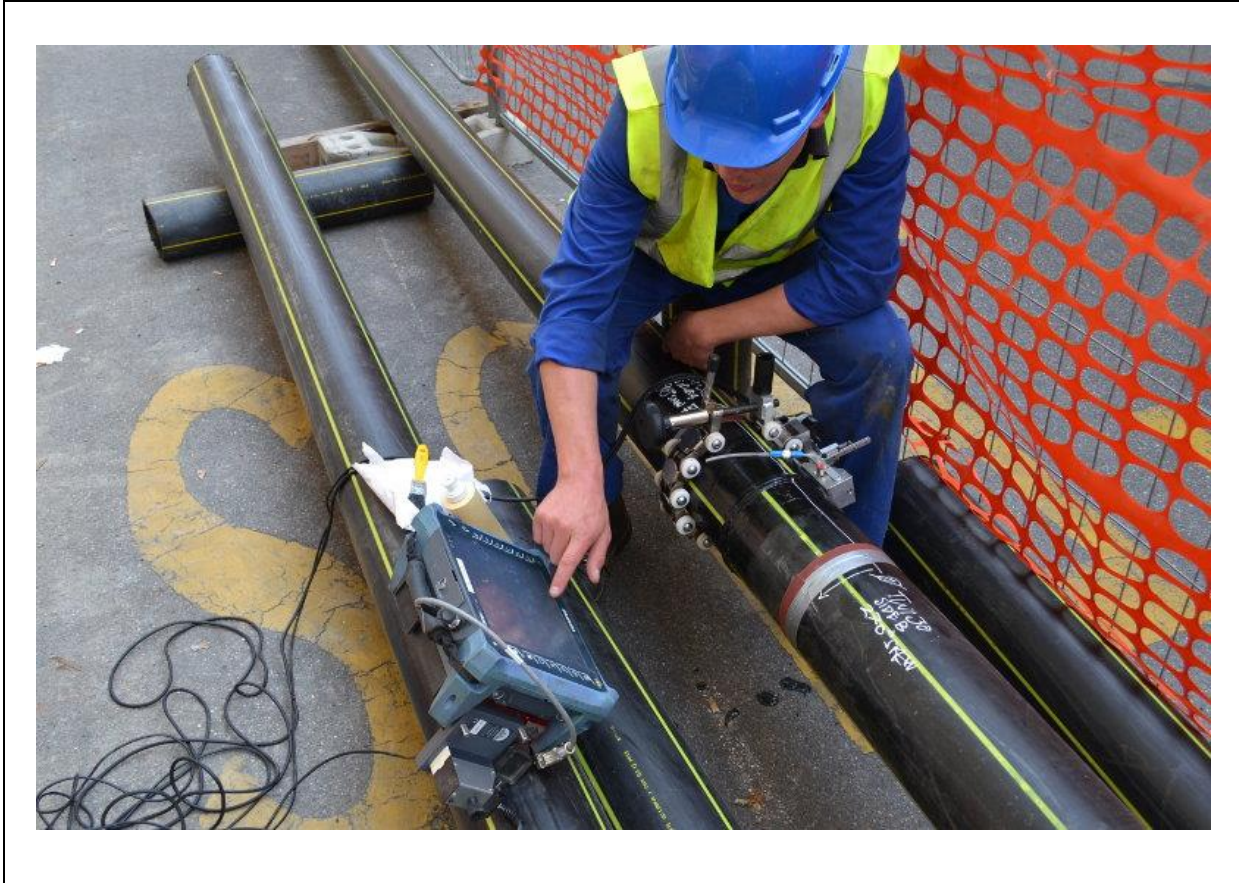
Day 5: Thursday, 24th of September 2020

0730 – 0930	Overall Review
0930 – 0945	Break
0945 – 1100	Exercises & Testing
1100 – 1200	Exercises & Testing (cont'd)
1200 – 1215	Break
1215 – 1400	Summary, Open Forum, Course Conclusion & Closing
1400 – 1415	POST-TEST
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course



Practical Sessions

This hands-on, highly-interactive course includes real-life case studies and exercises:-



Course Coordinator

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