

COURSE OVERVIEW FE0702
API 1169: Pipeline Construction Inspector
(API Exam Preparation Training)

Course Title

API 1169: Pipeline Construction Inspector
(API Exam Preparation Training)

Course Date/Venue

September 01-05, 2024/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Exam Venue

Abu Dhabi, Dubai, Al-Khobar, Jeddah, Kuwait, Amman, Beirut, Cairo, Manama and Muscat. Participant has the option to attend at any of the above cities

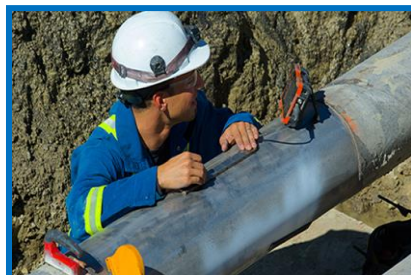
Course Reference

FE0702

Course Duration/Credits

Five days/4.0 CEUs/40 PDHs

Course Description



This practical and 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 course covers the API requirements needed to perform inspection activities safely and effectively during construction of new onshore pipelines. Attending this course will provide the basis for what construction inspectors need to know including the required knowledge and information related to each facet of new pipeline construction inspection activities.

The course is divided into the following major sections:

- Inspector Responsibilities
- Personnel and General Pipeline Safety
- Environmental and Pollution Control
- General Pipeline Construction Inspection

Haward Technology is proud of its **90% pass rate** on all our API sponsored courses.



Course Objectives

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

- Prepare for the next API 1169 exam and have enough knowledge and skills to pass such exam in order to get the API 1169 certification
- Apply and gain an in-depth knowledge on pipeline inspection in accordance with API 1169 standard
- Discuss the pipeline construction inspector responsibilities covering quality assurance, planning activities, authority to stop work, reporting, documentation, public relations, media relations, safety and work ethics
- Enumerate personnel and general pipeline safety requirements as well as environmental and pollution control requirements
- Recognize general pipeline construction requirements covering verification of personnel qualifications, ROW inspection, coating, marking, ROW preparation, ditching and excavation
- Employ pipeline handling, hauling and stringing operations
- Identify piping components, materials and other mainline appurtenances
- Operate pipe bending and discuss pipe alignment and welding requirements
- Describe roadway, railroad and other crossing, waterway and water body crossings
- Distinguish the different requirements of corrosion control, lowering in requirements, back fill and cleanup, pipeline cleaning, internal line inspection, hydrostatic pressure, testing commissioning, inspector tools for communication and documentation

Who Should Attend

This course provides a wide understanding and deeper appreciation of pipeline inspection in accordance with the API 1169 standard for those who are engaged in pipeline inspection or seeking to become certified pipeline inspectors. The course is also beneficial to pipeline owner/operators and pipeline inspection service companies in order for them to aid and enhance their inspector training programs.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

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

Accommodation

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

Exam Eligibility & Structure

Exam candidates shall have the following minimum pre-requisites:-

The qualification requirements for API 1169 are based on a combination of the number of years of experience acquired within the last 20 years, plus education and in some cases, other certifications.

Your experience and education should match at least one of the combinations in any one of the grids below:-

Description of Experience Required	Minimum Years of Experience Required	Plus: Education
INSPECTION EXPERIENCE		
PIPELINE INSPECTION Experience acquired in areas such as Utility inspection, Pressure/Leak Testing, Welding Inspection, Coating Inspection, Safety Inspection, Offshore Pipeline Inspection	3 years	Any or no education
	2 years	BS or 2-year degree in a technical discipline, engineering or technology OR 2 years of military service in a technical role
GENERAL OIL & GAS INSPECTION Experience acquired in areas such as: Equipment Inspection, NDT, In-service Inspection, Visual Inspection, Welding Inspection, Pressure/Leak Testing, Inspection of Aboveground Storage Tanks, Piping or Pressure Vessels, Manufacturing/Source Inspection	3 years	BS or 2-year degree in a technical discipline, engineering or technology OR 2 years of military service in a technical role
	4 years	High School, GED or no education
NON-INSPECTION PIPELINE EXPERIENCE		
Experience acquired in areas such as: Pipeline Construction, Pipeline Surveyor, Pipeline Operation, Offshore Pipeline, Welding, Fitting, Coating, Operation of Heavy Equipment, Pipeline Safety Supervisor	4 years	BS or 2-year degree in a technical discipline, engineering or technology OR 2 years of military service in a technical role
	5 years	High School, GED or no education

Description of Experience Required	Minimum Years of Experience Required	Plus: Education	Plus: Certification
GENERAL OIL & GAS INDUSTRY EXPERIENCE			
Experience acquired at any petrochemical facility, such as refinery or petrochemical plants Experience may relate to: Operation, Construction and repair of petrochemical equipment	Total of 4 years which includes <u>at least 1 year</u> of Pipeline Specific experience	Any or no education	Any certification from the following: <ul style="list-style-type: none"> ▪ AWS/CWB ▪ NACE (Level II or greater) ▪ API ▪ ASNT (Level III or greater) ▪ CGSB, PCN or any other ISO 9712 accredited NDE certification
	6 years	Any or no education	

Description of Experience Required	Minimum Years of Experience Required	Plus: Education	Plus: Certification
OTHER HEAVY INDUSTRY EXPERIENCE			
Experience acquired in industries or areas such as: Road Building, Civil Construction, Mining, Logging, Heavy Equipment Operating, Blasting, Power (ex: nuclear, gas-fired, etc.), Shipbuilding, Construction related activities such as welding, coating, material handling, excavation, etc.	5 years	BS or 2-year degree in a technical discipline, engineering or technology OR, 2 years of military service in a technical role	Any certification from the following: <ul style="list-style-type: none"> ▪ AWS/CWB ▪ NACE (Level II or greater) ▪ API ▪ ASNT (Level III or greater) ▪ CGSB, PCN or any other ISO 9712 accredited NDE certification
	8 years	Any or no education	

Required Codes and Standards:

Listed below are the effective editions of the publications required for this examination on the date(s) shown above. **Each participant must purchase these documents separately and have them available for use during the class as their cost is not included in the course fees:-**

- **API Recommend Practice 1169**, *Pipeline Construction Inspection*, 2nd Edition, March 2020
- **API Recommended Practice 1110**, *Pressure Testing of Steel Pipelines for the Transportation of Gas, Petroleum Gas, Hazardous Liquids, Highly Volatile Liquids, or Carbon Dioxide*, 7th Edition, December 2022
- **API Specification Q1**, *Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry*, 9th Edition, June 2013; Addendum 1 (June 2016) and Addendum 2 (June 2018); Errata 1 (February 2014), Errata 2 (March 2014), and Errata 3 (October 2019) Sections 3-5 only
- **ANSI Z49.1**, *Safety in Welding, Cutting, and Allied Processes*, 2021 Chapters 4, 5, 6 and 8
- **CGA**, *Best Practices*, Current Edition
- **CS-S-9** *Pressure Testing (Hydrostatic/Pneumatic) Safety Guidelines*, December 2018
- **ISO 9000:2015** *Quality Management Systems – Fundamentals and Vocabulary*, 4th edition (confirmed in 2021). Definitions Only
- **Either API Standard 1104**, *Welding of Pipelines and Related Facilities*, 22nd Edition, July 2021 OR **CSA Z662-19**, *Oil and Gas Pipeline Systems*, June 2019 (Chapters 1, 2, 4, 6, 7, 8, 9 and 10)

Applicants may choose to study from either column

The references below will be available to applicants on the computer screen during the exam. Please check the API website for PDFs of the below references:

US References	Canadian Equivalents
<ul style="list-style-type: none"> • Code of Federal Regulations (CFR) 49 CFR 192, <i>Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards: Article 7, Subpart E, Subpart G, Article 505, Article 614 & Article 707</i> • 49 CFR 195, <i>Transportation of Hazardous Liquids by Pipeline: Article 2 Article 3, Subpart D, Article 302, Article 310 & Article 410</i> 	
Safety	
<ul style="list-style-type: none"> • Code of Federal Regulations (CFR) 29 CFR 1910, <i>Occupational Safety and Health Standards (OSHA): Article 119, Subpart I (Excluding Article 140 & Subpart I Appendices), Articles 145-147 (Excluding Appendices) & Article 184</i> 29 CFR 1926, <i>Safety and Health Regulations for Construction (OSHA): Subpart C, Article 62 (Excluding Appendices), Article 102, Article 152, Articles 250-251, Article 451, Articles 500-501, Article 601, Subpart P, Articles 902 & 914 & Article 1417.</i> 49 CFR 172, <i>Hazardous Materials Table, Special Provisions Hazardous Materials Communication, Emergency Response Information, Training Requirements, and Security Plans: Article 101 (Excluding Appendices)</i> 	<ul style="list-style-type: none"> • Canada Occupational Health and Safety Regulations (COHS) (F): Part III, IV, X, XI, IXII, XIV, XV, XIX • Transport Canada, <i>Transportation of Dangerous Goods Regulations (F): Part 1.4, 2 (excluding appendices 1 & 3 through 5), 4 & 6</i>
Environmental	
<ul style="list-style-type: none"> • Code of Federal Regulations (CFR) <ul style="list-style-type: none"> ◦ 33 CFR 321, <i>Permits for Dams and Dikes in Navigable Waters of the United States</i> 	<ul style="list-style-type: none"> • Canadian Environmental Protection Act, 1999 (S.C. 1999, c.33) (F): Sections 3, 64-65 & 90-99 • Fisheries and Oceans, Land

<ul style="list-style-type: none"> ◦ 40 CFR 300, <i>National Oil and Hazardous Substances Pollution Contingency Plan: Subparts A & E</i> • Federal Energy Regulatory Commission: Office of Energy Projects <u>Wetland and Waterbody Construction and Mitigation Procedures</u>, May 2013 <u>Upland Erosion Control, Revegetation, and Maintenance Plan</u>, May 2013 • <u>Migratory Bird Permits (50 CFR Part 21)</u>: Subpart B • <u>33 USC Chapter 9: Protection of Navigable Waters and of Harbor and River Improvements Generally</u> Subchapter I Articles 401,403, 403a, 404, 407 • <u>Endangered Species Act of 1973</u>: Sections 3, 4, 7, 9, 10, 12 	<p><i>Development Guidelines for the Protection of Aquatic Habitat: Section 3</i></p> <ul style="list-style-type: none"> • <u>Canada Water Act (R.S.C., 1985, c.C-11) (F)</u>: Part II • <u>Canadian Energy Pipeline Association (CEPA), Pipeline Associated Watercourse Crossings</u>, 4th Edition, November 2012 • <u>Migratory Bird Convention Act, 1994 (S.C. 1994, c.22) (F)</u>: Sections 4-6 & 12 • <u>Navigation Protection Act (R.S.C.,1985, c. N-22) (F)</u>: Sections 2-14 & 21-26 • <u>Species at Risk Act (S.C. 2002, c. 29) (F)</u> Sections 2, 32-39 & 56-64 <p>Canadian documents with (F) listed next to their titles indicates that the document is provided in both English and French during the exam. Please note that not all documents have French translations.</p>
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American Society of Mechanical Engineers (ASME)

B31.4, Pipeline Transportation Systems for Liquids and Slurries, 2022 Edition
Chapter I-III and V-VI only

B31.8, Gas Transmission and Distribution Piping Systems, 2022 Edition
General Provisions and Definitions and Chapter I-IV & VI only

Note: API and ASME publications are copyrighted material. Photocopies of API and ASME publications are not permitted. CD-ROM versions of the API documents are issued quarterly by Information Handling Services and are allowed. Be sure to check your CD-ROM against the editions noted on this sheet.

Course Fee

US\$ 7,500 per Delegate + **VAT**. This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day

Exam Fees

US\$ 720 per Delegate + **VAT**.

API Certificate(s)

- (1) API-1169 certificate will be issued to participants who have successfully passed the API-1169 examination.



- (2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

CEUs

Howard Technology Middle East
Continuing Professional Development (HTME-CPD)

CEU Official Transcript of Records

TOR Issuance Date: 14-Nov-23
HTME No.: 74862
Participant Name: Salem Ghanem

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
FE0702	API 1169: Pipeline Construction Inspector (APT Exam Preparation Training)	November 10-14, 2023	40	4.0

Total No. of CEU's Earned as of TOR Issuance Date: **4.0**

TRUE COPY
Jayril Castillo
Academic Director

Howard Technology has been approved as an Accredited Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this approval, Howard Technology has demonstrated that it complies with the standards and requirements of the IACET Accredited Provider Program. The IACET Accredited Provider Program is a voluntary program that provides members with a means to ensure that their training programs are of high quality and meet the standards of the IACET Accredited Provider Program. Howard Technology's courses meet the professional education 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). Accredited providers are authorized to award CEUs to participants who successfully complete a course. The CEU is an internationally accepted unit of measurement for professional education and training.

Howard Technology is accredited by:

- BAC
- ASNT
- ilm
- ITM
- APPT
- IACET
- UKAS
- IOSH

P.O. Box 26070, Abu Dhabi, United Arab Emirates | Tel.: +971 2 3091 714 | E-mail: info@howard.org | Website: www.howard.org

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations:-


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The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors 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 2018-1 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 2018-1 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 Accreditors 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 **4.0 CEUs** (Continuing Education Units) or **40 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. Yehia Omer is a **Senior Inspection Engineer** with over **25 years** of extensive experience within the **Petrochemical, Refinery, Utilities and Oil & Gas** industries. His expertise includes Pressure Vessel Inspection (**API 510**), Piping Inspection (**API 570**), Tank Inspection (**API 653**), Process Piping Design, **Construction & Mechanical Integrity (ASME B31.3 & API 570)**, **Inspection of Pressure Relieving Devices**, Risk Based Inspection (**RBI**), Fitness-for-Service (**FFS**), **P&ID & Engineering Drawings, Codes & Standards, Corrosion & Corrosion Control and Corrosion Awareness & Monitoring**. Further, he is also well-versed in **Welding Inspection, Inspection and Testing of Plant & Equipment** including **vessels, tanks, pipework, pipelines, structural** systems and an international expert in **API, ASME, NACE, NDT, ANSI, ASTM, BSI, DEP, DIN** and other engineering specifications and international standards. He is currently the **Inspection & Corrosion Manager** of **BPC** which is a partner of **Shell** wherein he is responsible for the corrosion and inspection aspects of the whole company.

Mr. Yehia has obtained and shared his in-depth practical experience wherein he was responsible for the inspection and recertification of pressure vessels, piping, tank and structures as he held numerous key positions for multi-international companies including **BPC (Shell), PetroJet, RashPetco (BG), Libya SIRTE Company and ADCO** as the **Pressure Vessel Inspector, Piping Inspector, Tank Inspector, Welding Inspection Engineer, Inspection Advisor and API Inspection Engineer**.

Mr. Yehia has a **Bachelor** degree in **Mechanical Engineering** and a **Certified Instructor/Trainer**, a **Certified Pressure Vessel Inspector (API-510)**, **Certified Piping Inspector (API-570)** and a **Certified Tank Inspector (API-653)**. Further, he is a **Certified Instructor/Trainer** and has acquired certifications in **Pressure Vessel Design and Inspection (ASME VIII DIV I&II)** and **Corrosion** in Petroleum Industries from the **American University** as well as a **Competent Scaffolding Supervisor** certificate from the **Occupational Safety and Health Administration (OSHA)**.

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, 01st of September, 2024

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Introduction Scope • Normative References • Terms, Definitions & Abbreviations
0930 – 0945	Break

0945 – 1200	Pipeline Construction Inspector Responsibilities Scope • Owner/Operator Representative • Quality Assurance • Relationship with Contractors, Suppliers & Vendors
1200 – 1300	Lunch
1300 – 1500	Pipeline Construction Inspector Responsibilities (cont'd) Planning Activities • Authority to Stop Work • Reporting • Documentation • Public Relations • Media Relations • Safety • Work Ethics
1500 – 1515	Break
1515 – 1645	Personal & General Pipeline Safety Requirements Scope • Job Safety Analysis (JSA) • Personal Protective Equipment (PPE) • Loss Prevention Systems • Protective Measures for Radiation • Job Site & Facility Security • Required Work Permits • Rigging & Lifting Safety • Isolation of Hazardous Energy Sources • Excavation, Trenching & Boring Safety • Confined Space Entry Requirements
1645 – 1700	Distribute Homework & Recap
1700	End of Day One

Day 2: Monday, 02nd of September, 2024

0730 – 0800	Review Homework Answers
0800 – 1000	Personal & General Pipeline Safety Requirements (cont'd) Atmospheric Testing • Respiratory Protection • Fall Prevention & Protective Systems • Scaffolding & Ladders
1000 – 1015	Break
1015 – 1200	Personal & General Pipeline Safety Requirements (cont'd) Use, Movement, Storage, & Inspection of Tools, Equipment & Materials • Facility, Commissioning, & Pre-start-up Review • Regulatory Agency Inspections • Vehicle Operation
1200 – 1300	Lunch
1300 – 1500	Environmental & Pollution Control Requirements Scope • Erosion, Sediment & Runoff Control on the Pipeline ROW • Federal, State & Typical Local Environmental Permits
1500 – 1515	Break
1515 – 1645	Environmental & Pollution Control Requirements (cont'd) Major Statutes • Water Crossing Permits • Use of Natural Water Sources • Handling Contamination Issues
1645 – 1700	Distribute Homework & Recap
1700	End of Day Two

Day 3: Tuesday, 03rd of September, 2024

0730 – 0800	Review Homework Answers
0800 – 1000	General Pipeline Construction Requirements Scope • Verification of Construction Personnel Qualifications • ROW Inspection Requirements
1000 – 1015	Break
1015 – 1200	General Pipeline Construction Requirements (cont'd) Locating & Marking Requirements • ROW Preparation Requirements • Ditching & Excavation Requirements
1200 – 1300	Lunch
1300 – 1500	General Pipeline Construction Requirements (cont'd) Pipe Handling, Hauling, & Stringing Operations • Piping Components, Materials, & Other Mainline Appurtenances • Pipe Bending Operations

1500 – 1515	Break
1515 – 1645	General Pipeline Construction Requirements (cont'd) Pipe Alignment & Welding Requirements • Roadway, Railroad, & Other Crossings • Waterway & Water Body Crossings
1645 – 1700	Distribute Homework & Recap
1700	End of Day Three

Day 4: Wednesday, 04th of September, 2024

0730 – 0800	Review Homework Answers
0800 – 1000	General Pipeline Construction Requirements (cont'd) Corrosion Control Requirements • Lowering in Requirements
1000 – 1015	Break
1015 – 1200	General Pipeline Construction Requirements (cont'd) Backfill & Cleanup Requirements • Pipeline Cleaning Requirements
1200 – 1300	Lunch
1300 – 1500	General Pipeline Construction Requirements (cont'd) Internal Line Inspection Requirements • Hydrostatic Pressure Testing Requirements • Commissioning Requirements
1500 – 1515	Break
1515 – 1645	General Pipeline Construction Requirements (cont'd) Documentation Requirements • Inspector Tools for Communication & Documentation Requirements
1645 – 1700	Distribute Homework & Recap
1700	End of Day Four

Day 5: Friday, 05th of September, 2024

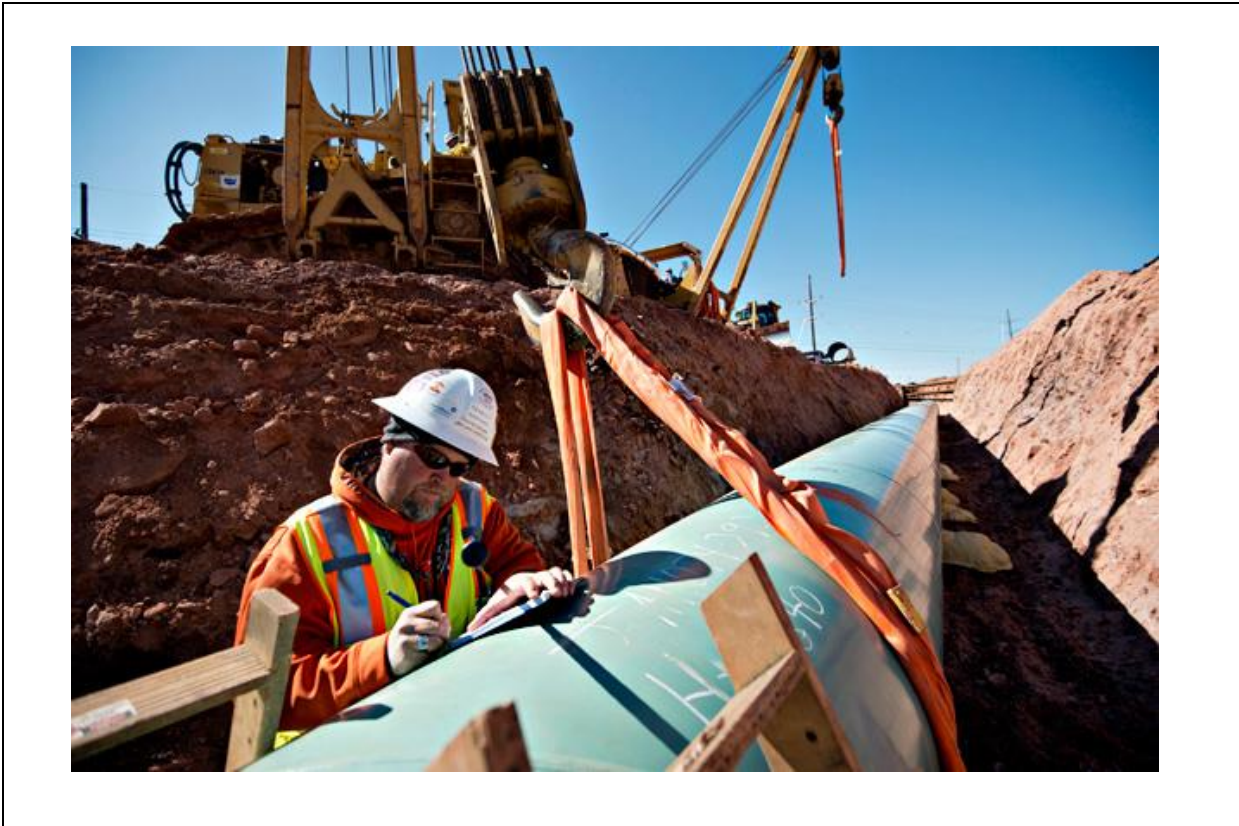
0730 – 0800	Review Homework Answers
0800 – 1000	Question & Answer Session
1000 – 1015	Break
1015 – 1200	API 1169 Sample Exam
1200 – 1300	Lunch
1300 – 1500	API 1169 Sample Exam
1500 – 1515	Break
1515 – 1630	Review API 1169 Exam Answers
1630 – 1645	Course Conclusion
1645 – 1700	Presentation of Course Certificates
1700	End of Course

MOCK Exam

Upon the completion of the course, participants have to sit for a MOCK Examination similar to the exam of the Certification Body through Haward's Portal. Each Participant will be given a username and password to log in Haward's Portal for the Mock exam during the 7 days following the course completion. Each participant has only one trial for the MOCK exam within this 7-day examination window. Hence, you have to prepare yourself very well before starting your MOCK exam as this exam is a simulation to the one of the Certification Body.

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-



Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org