

# COURSE OVERVIEW FE0674 API 572: Inspection Practices for Pressure Vessels

# Course Title

API 572: Inspection Practices for Pressure Vessels

#### **Course Date/Venue**

November 23-27, 2025/Slaysel 02 Meeting Room, Movenpick Hotel & Resort Al Bida'a Kuwait, City of Kuwait

> O CEUS 30 PDHS)

Course Reference

Course Duration/Credits Five days/3.0 CEUs/30 PDHs

#### Course Description









This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-ofthe-art simulators.

This recommended practice (RP) supplements API 510 by providing pressure vessel inspectors with information that can improve skills and increase basic knowledge of inspection practices. This RP describes inspection practices for the various types of pressure vessels (e.g. drums, heat exchangers, columns, reactors, air coolers, spheres) used in petroleum refineries and chemical plants. It also addresses vessel components, inspection planning processes, inspection intervals, methods of inspection and assessment, methods of repair, records and reports. API 510 has requirements and expectations for inspection of pressure vessels.

The course is designed to provide participants with a detailed and up-to-date overview of pressure vessels inspection practices in accordance with API 572. It covers the standard inspection terminology based on API RP 572 and API 510; the common methods of construction and materials, internal components and equipment, uses of pressure vessels, design and construction standards; the reasons for inspection; the inspection plans for specific types of damage; and reviewing and updating of inspection plans.



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During this interactive course, participants will learn the frequency and extent of inspection; the safety precautions and preparatory work; the precautions regarding the use of breathing air; the inspection methods and limitations; the thickness measurements, external and internal inspection and special methods of detecting mechanical damage; the metallurgical changes and in-situ analysis of metals; the pressure and vacuum testing; the condition assessment and repair, derating and fitness-for-service, visual inspection, methods of repair and repair of supporting vessel equipment; and the inspection practices for towers.

## **Course Objectives**

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

- Apply and gain an in-depth knowledge on pressure vessels inspection practices in accordance with API 572
- Define the standard inspection terminology based on API RP 572 and API 510
- Discuss the common methods of construction and materials, internal components and equipment, uses of pressure vessels and design and construction standards
- Explain the reasons for inspection and apply inspection plans for specific types of damage
- Review and update inspection plans and discuss risk-based inspection
- Identify the frequency and extent of inspection as well as carryout safety precautions and preparatory work
- Recognize precautions regarding the use of breathing air including inspection methods and limitations
- Apply thickness measurements, external and internal inspection and special methods of detecting mechanical damage
- Identify metallurgical changes and in-situ analysis of metals and perform pressure and vacuum testing
- Employ condition assessment and repair, derating and fitness-for-service, visual inspection, methods of repair and repair of supporting vessel equipment
- Carryout inspecting practices for towers

# Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive "Haward Smart Training Kit" (H-STK<sup>®</sup>). The H-STK<sup>®</sup> consists of a comprehensive set of technical content which includes electronic version of the course materials conveniently saved in a Tablet PC.



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#### Who Should Attend

This course provides a wide understanding and deeper appreciation of pressure vessels inspection practices in accordance with API 572 for inspectors, QA/QC personnel, engineers, tradespeople and those who are working for plant owners, pressure equipment manufactures and repair organizations, engineering procurement and construction companies in oil and gas industries (oilfield, upgraders, refineries, etc.), chemical plants, petroleum refining, petrochemical plants, power plants, pulp and paper plants, fertilizer plants and others.

#### Course Fee

**US\$ 5,500** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

#### 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.



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# Course Certificate(s)

(1) Internationally recognized Wall Competency Certificates and Plastic Wallet Card Certificates will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Certificates are valid for 5 years.

#### Recertification is FOC for a Lifetime.

## Sample of Certificates

The following are samples of certificates that will be awarded to course participants:-







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(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.

	* Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology *	
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* CEUs * Ha	Haward Technology is an Authorized Training Provider by the International Association for Continuing Education and Training (IACET), 11130 Sunrise Valley Drive, Suite 350 Reston, VA 20191, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/ACET 1-2013 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/ACET 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.	DE CEUS
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# **Certificate Accreditations**

Certificates are accredited by the following international accreditation organizations: -

# 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 **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.



# 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.



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#### 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:



Dr. Tony Dimitry, PhD, MSc, BSc, is a Senior Corrosion & Metallurgical Engineer with over 30 years of industrial experience. His expertise covers Corrosion Prevention, Cathodic Protection Systems, Corrosion Control, Corrosion Inhibition, Corrosion Management in Process Operations, Corrosion Engineering, Metallurgical Failure Analysis & Prevention, Fabrication & Repair, Corrosion & Prevention of

Failures, Material Selection, Welding Technology, Welding Defects Analysis, Brazing/Soldering, Steel Manufacturing, Facility Integrity, Ladle Furnace Treatment, Ferro-Alloys Production, Tank Farm & Tank Terminal Safety, Integrity Management, Fitness-for-Service (FFS), Process Plant Equipment, Pressure Vessels, Piping & Storage Facilities, Piping Vibration Analysis & Practical Engineering Solutions, Remaining Life Assessment & Repair of Pressure Equipment & Piping, Pipeline Operations & Maintenance, Gas Transportation Code. Maintenance Management. Pipina Reliability Management, Rotating Equipment, Static Equipment, Failure Analysis, FMEA and Preventive & Predictive Maintenance. Currently, he is in charge of the metallurgical failure analysis and the usage of fracture mechanics for determining crack propagation in impellers of turbines.

During his career life, Dr. Dimitry held a significant positions such as the Operations Engineers, Technical Trainer, HSE Contracts Engineer, Boilers Section Engineer, Senior Engineer, Trainee Mechanical Engineer, Engineer, Turbines Section Head, Professor, Lecturer/Instructor and Teaching Assistant from various multinational companies like Chloride Silent Power Ltd., Technical University of Crete, National Nuclear Corporation, UMIST Aliveri Power Station and HFO Fired Power Station.

Dr. Dimitry has a PhD, Master's and Bachelor's degree in Mechanical Engineering from the Victory University of Manchester and the University of Newcastle, UK respectively. Further, he is a Certified Instructor/Trainer, a Certified Internal Verifier/Assessor/Trainer by the Institute of Leadership & Management (ILM) and an associate member of the American Society of Mechanical Engineers (ASME) and Institution of Mechanical Engineers (IMechE). He has further delivered various trainings, seminars, courses, workshops and conferences internationally.



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# 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, 23 <sup>rd</sup> of November 2025
0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0900	Introduction to Pressure VesselsIntroduction to Standard Inspection Terminology Based on API RP 572 & API510• Common Methods of Construction & Materials• Internal Components& Equipment• Uses of Pressure Vessels• Design & Construction Standards
0900 - 0915	Break
0915 – 1100	<b>Reasons for Inspection</b> Safety
1100 - 1230	<b>Reasons for Inspection (cont'd)</b> Reliability & Efficient Operation
1230 - 1245	Break
1245 - 1420	<b>Reasons for Inspection (cont'd)</b> Regulatory Requirements
1420 - 1430	<b>Recap</b> Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day One

## Day 2: Monday, 24<sup>th</sup> of November 2025

0730 0000	Inspection Plans
0750 - 0900	<i>Inspection for Specific Types of Damage</i> • <i>Developing Inspection Plans</i>
0900 - 0915	Break
0015 1100	Inspection Plans (cont'd)
0915 - 1100	Reviewing and Updating Inspection Plans
1100 1215	Inspection Plans (cont'd)
1100 - 1215	Brief Introduction to Risk-Based Inspection
1215 – 1230	Break
1220 1420	Frequency & Extent of Inspection
1230 - 1420	Opportunities for Inspection
	Recap
1420 1420	Using this Course Overview, the Instructor(s) will Brief Participants about the
1420 - 1430	Topics that were Discussed Today and Advise Them of the Topics to be
	Discussed Tomorrow
1430	Lunch & End of Day Two



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Day 3:	Tuesday, 25 <sup>th</sup> of November 2025
	Safety Precautions & Preparatory Work
0730 – 0900	Safety Precautions • Precautions Regarding the Use of Breathing Air •
	Preparatory Work for Safety
0900 - 0915	Break
0015 1100	Inspection Methods & Limitations
0913 - 1100	Thickness Measurements • External Inspection
1100 1230	Inspection Methods & Limitations (cont'd)
1100 - 1230	Internal Inspection • Special Methods of Detecting Mechanical Damage
1230 – 1245	Break
	Inspection Methods & Limitations (cont'd)
1245 – 1420	Metallurgical Changes and In-situ Analysis of Metals • Pressure and Vacuum
	Testing
	Recap
1/20 1/30	Using this Course Overview, the Instructor(s) will Brief Participants about the
1420 - 1430	Topics that were Discussed Today and Advise Them of the Topics to be
	Discussed Tomorrow
1430	Lunch & End of Day Three

Day 4:	Wednesday, 26 <sup>th</sup> of November 2025
0730 0000	Condition Assessment & Repair
0730 - 0900	Derating & Fitness-For-Service • Visual Inspection
0900 - 0915	Break
0015 1100	Condition Assessment & Repair (cont'd)
0915 - 1100	Thickness Measurements • Remaining Life
1100 1220	Condition Assessment & Repair (cont'd)
1100 - 1250	Methods of Repair • Repair of Supporting Vessel Equipment
1230 - 1245	Break
1245 1420	Records & Reports Repair
1243 - 1420	Permanent Records, Field Notes, File Data
	Recap
1420 1420	Using this Course Overview, the Instructor(s) will Brief Participants about the
1420 - 1430	Topics that were Discussed Today and Advise Them of the Topics to be
	Discussed Tomorrow
1430	Lunch & End of Day Four

Day 5:	Thursday, 27 <sup>th</sup> of November 2025
	Inspecting Practices for Towers
0730 - 0900	<i>Trayed &amp; Packed Towers</i> • <i>Safety</i> • <i>External Inspection, Anchor Bolts, Skirt</i>
	Fireproofing
0900 - 0915	Break
	Inspecting Practices for Towers (cont'd)
0915 – 1045	Internal Inspection of Packed Towers • Packing in Place and Removed • Strip
	Lining and Cladding
	Inspecting Practices for Towers (cont'd)
1045 – 1215	Internal Manways Installed and Removed • Tray Valves: Fixed Trays Valves
	and Bubble Cap Trays • Tray Decks and Hardware



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1215 – 1230	Break
	Inspecting Practices for Towers (cont'd)
1230 – 1300	Tower Attachments: Tray Support Rings, Support Clips, Downcomer Bars, Etc. •
	Detecting Surface Corrosion in Towers
	Course Conclusion
1300 – 1315	Using this Course Overview, the Instructor(s) will Brief Participants about the
	Course Topics that were Covered During the Course
1315 – 1415	COMPETENCY EXAM
1415 - 1430	Presentation of Course Certificates
1430	Lunch & End of Course

## Simulator (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the state-of-the-art "COMPRESS" simulator.



# Course Coordinator

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