



**WILKINSON
COUTTS**

ENGINEERING TRAINING LTD

COURSE BROCHURE



2018

TECHNICAL
TRAINING FOR
INDUSTRY

WELCOME

We wish to take this opportunity to thank you for providing Wilkinson Coutts Engineering Training Ltd. with the pleasure to present this brochure for your training requirements.

We provide technical training across the globe to a multitude of clients, so we know the importance of ensuring we meet our clients expectations, not only from a technical capability but also from a customer service aspect.

We understand training can often be seen as a necessary evil, hiring 3rd party trainers costs money, and the hours are usually unbillable for those in attendance.

That is why we communicate with our clients before the training course delivery.

We ensure that the topics covered are relevant and targeted towards the learning objectives set by the client, maximising the return on investment. If there is something we have not included in the proposal, we would urge you to contact us so we can see if it's deliverable.

We pride ourselves on our continuous positive feedback, please feel free to take a look at

www.wilkinsoncoutts.com

PAUL WILKINSON
MANAGING DIRECTOR

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OUR COMPANY

Wilkinson Coutts Engineering Training Ltd was founded to meet the needs of the plant inspection and management of static pressure equipment industry. Having delivered API training and ASME Plant Inspection training to individuals and companies across the globe, we know the importance of ensuring delegates receive the most excellent attention and support during our courses.

WHY WE DIFFER

We understand that every client has unique training requirements and learning objectives driven by their site equipment, damage mechanisms, integrity management activities and regulatory compliance requirements. We will always discuss the training requirements based on our clients' needs and tailor the course content and learning outcomes to suit. Although we do have 'off-the-shelf courses' ready for delivery, we like to maximise the value of the training to our clients by offering this bespoke service.

"Training builds morale. Investing in people demonstrates they have a future with the organisation. To build a team of loyal, fully engaged, high achievers, hire the right people then invest in their development regularly."



OUR VALUES

We know the value that can be gained by undertaking effective but enjoyable training. We don't have delegates staring endlessly at PowerPoint presentations. Instead, we conduct our training using extensive class interaction, and where necessary relevant case studies. We don't want our training to be a 'Tick Box' exercise, instead, we want our delegates to remain engaged and take their learnings back to the workplace.



We Listen

We listen to our clients feedback and act on it. We receive consistently excellent feedback on our training, and if shortcomings were identified, we work fast to rectify them ensuring continuous improvement in our company. Visit our website to review our feedback.



We Care

We care about our delegates receiving the highest standard of training. They will leave the course with a thorough understanding of the learning outcomes. This is where we see your return on investment, increasing the competence of employees to improve business efficiency.



We Connect

Building trust and long-lasting relationships with our clients lies at the core of our company. We provide excellent customer service, ensuring our clients come to us every time. We have built a large repeat client base on our pragmatic and logical approach.

Understanding

We seek to recognise and have an awareness of our clients needs and respond accordingly

Innovative

We always think of new ways of doing things, whether designing a new bespoke course; new curriculum or new way of teaching

Inspirational

We look to bring out the best in all whom we come into contact with



OUR GLOBAL REACH



Our company is based in the United Kingdom and Australia. We can travel to any point in the globe to deliver in-company training, even offshore if required.

We have delivered training in many of the major energy hubs across the globe including Houston (USA), Perth (AUS), Aberdeen (UK), Rotterdam (NL), Baku (AZ), New Plymouth (NZ) and many places in-between.

We also receive delegates from all across the globe, we're happy to help when it comes to discussing travel arrangements.



All our lecturers are experienced Mechanical, Integrity or Inspection Engineers with extensive lecturing experience and fully understand the need for robust technical training for those involved in the inspection and management of static pressure equipment. Our team understand the need to deliver this training on a personal level and provide support to each delegate.

PUBLIC COURSES



Our public courses are run throughout the year at various locations. Our most popular public courses are the American Petroleum Institute (API), Individual Certification Programme (ICP) exam preparation courses. Refer to the API training section for further information.

Other courses, such as our CPD accredited training are also available to public delegates. It may be more economic for a company to send their staff on a public course if only one or two staff members require training.

Our public course schedule is published on our website, it may change due to demand or resource requirements so please check regularly to see what courses are available.

IN-COMPANY COURSES

We provide in-company training to a multitude of clients across the globe. From small independent inspection companies, to large oil and gas production companies.

All our courses can be delivered in-house at your company premises, or we can arrange the venue and include this in the training quotation. In-company training brings significant savings in comparison to sending several individual delegates on a public course.

We can deliver bespoke courses tailored to the clients individual learning requirements. If you don't see a suitable course then it's always worthwhile contacting us, if we can't help we have a large network of experts to approach.



"World class training! Just passed my API 570 with thanks to the excellent training provided by Wilkinson Coutts. I would highly recommend anyone looking for training to use them." Tom Alldridge, Phillips 66.

API EXAM PREPARATION COURSES

WHAT IS API ICP?

The American Petroleum Institute (API) offers a certification programme for individual in-service inspectors handling the in-service inspection of pressure vessels, pipework and storage tanks. API also manages an expansive catalogue of API 'codes' which standardise practice.

The certifications are a legal requirement for inspectors in many US states. However, the extension of US ownership to include international facilities and onshore plants, along with the lack of a similarly broad scope of recognised standards in other countries, has resulted in the wide adoption of API practice within international plant industries.

Many other countries regulatory authorities also use these codes to assess evidence of inspector competence. The API certification programme is broken down into a series of API schemes, known as Individual Certification Programmes (ICPs)

WHY CHOOSE THE API ROUTE?

API certificates have become the most regarded, desired and demanded credentials in the in-service inspection industry, providing a method to improve your technical and code knowledge, strengthening your overall competence and career prospects

ENTRY REQUIREMENTS?

Prior to applying for the API ICP exam candidates must ensure that they meet the minimum requirements defined by API. The table sets out the requirements for 510/570/653.

EDUCATION	YEARS EXPERIENCE	EXPERIENCE REQUIRED
BS or higher in engineering or technology	1 year	Supervision or performance of inspection activities as described in code for which the exam is being taken
2-year degree or certificate in engineering or technology	2 years	Design, construction, repair, operation, or inspection of the type of equipment (vessels/pipework/tanks), of which one year must be in supervision or performance of inspection activities as described in the code for which the exam is being taken.
High school diploma or equivalent	3 years	
No formal education	5 or more years	

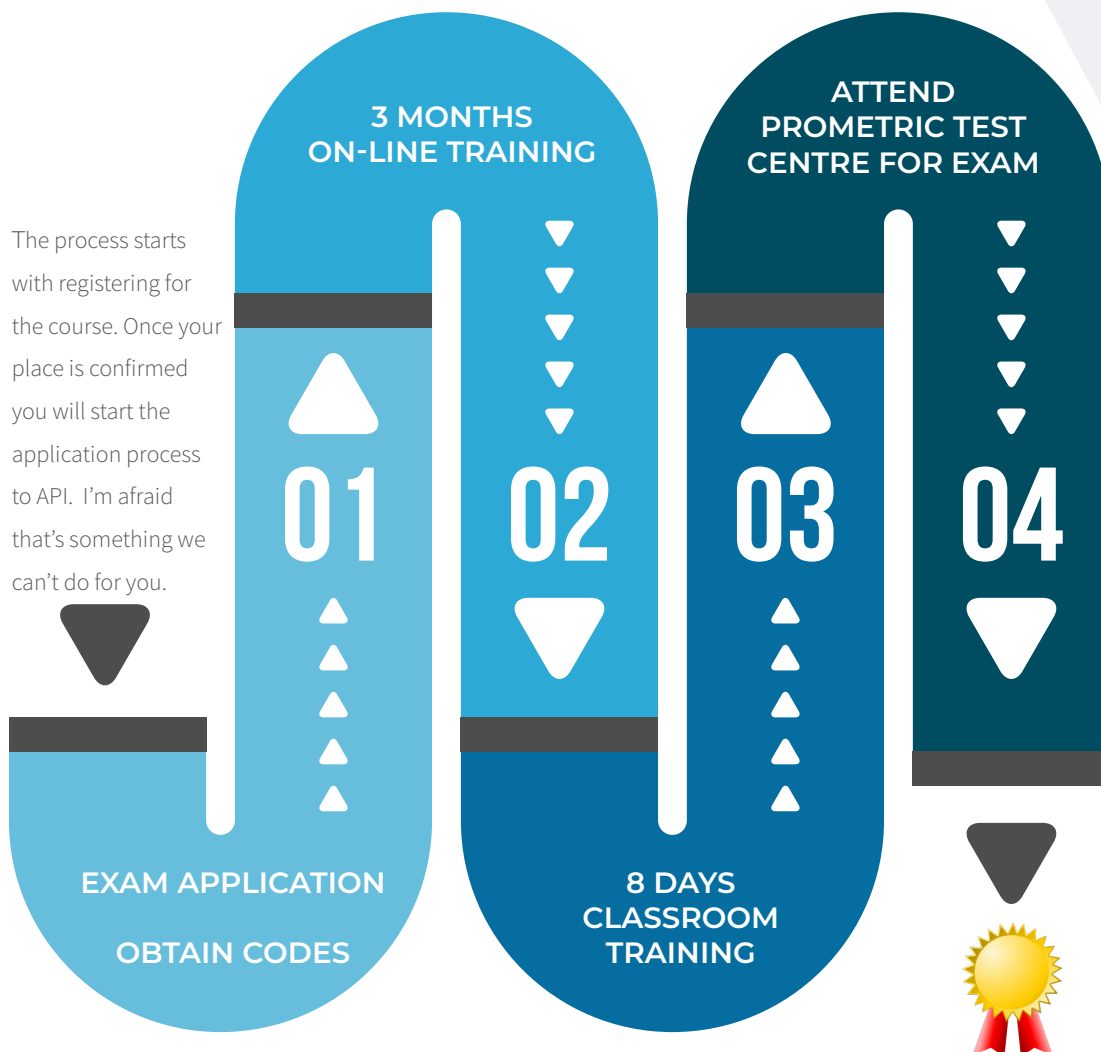
API 510/570/653 COURSE DELIVERY

Our API Individual Certification Programme (ICP) exam preparation training for 510, 570 and 653 is delivered in two parts. Preceding the residential training you will be expected to complete the on-line training modules which a significant amount of the learning on the course.

You will be guided through various modules with accompanying question sets aimed at increasing your technical knowledge and code familiarity.

The on-line training provides the knowledge that we consider the minimum standard required prior to our 8-day intensive residential course. This ensures that not only are you prepared, but that the course is not held up by delegates unfamiliar with the relevant codes.

After successful completion of the on-line training, the 8-day full time residential part of the course commences. This is delivered during a two-week calendar window, providing the ultimate preparation to our candidates prior to sitting the formal API examination.

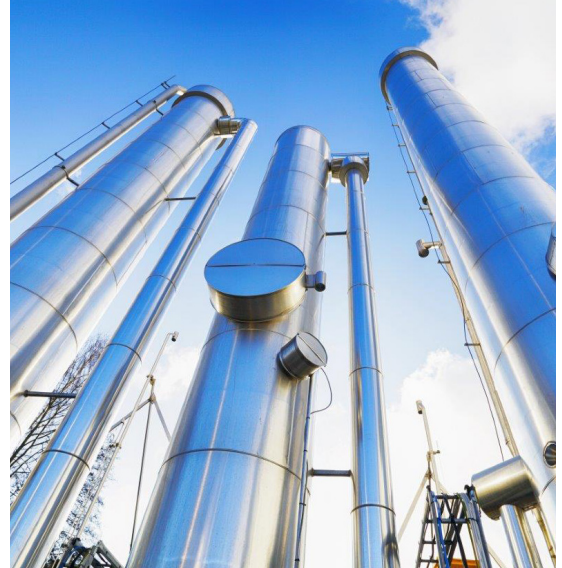


API 510 PRESSURE VESSEL INSPECTOR

Certified API 510 Pressure Vessel inspectors must have a broad knowledge base relating to maintenance, inspection, repair, and alteration of pressure vessels. The API 510 examination is designed to determine if individuals have such knowledge.

This certification program benefits employers and the industry as a whole by helping to:

- Improve management control of process unit operation, repair, and maintenance
- Reduce the potential for inspection delays
- Provide a continued high level of safety through the use of highly specialized and experienced inspectors



Body of Knowledge

- Corrosion rates and inspection intervals
- Joint efficiencies
- Static head calculations
- Calculation of minimum thickness for internal pressure
- Calculate maximum allowable working pressure
- Pressure testing procedures and calculations
- In-service repairs to 510
- ASME V Non Destructive Testing procedures
- Impact testing requirements
- Establishing weld sizes for welds at openings
- Nozzle reinforcement theory and calculations
- Welding procedure qualification and procedure review
- General rules for welding and examination in API and ASME
- Damage Mechanisms as per API 571 (510 selection only)

DURATION: 3 MONTHS ONLINE FOLLOWED BY 8 DAYS CLASSROOM

The course provides participants with the knowledge necessary to pass the exam and includes:

- Successfully pass the API 510 Pressure Vessel Inspector certification exam
- Effectively use major codes: ASME B&PV & Sections V, VIII, & IX
- Perform all basic vessel calculations needed for the API exam
- Use API's codes during inspection, repairs, and alterations of pressure vessels
- Review welding procedures (WPS/PQR) and welder performance qualifications (WPQ)

API 570 PIPING INSPECTOR



Certified API 570 Piping inspectors must have a broad knowledge base relating to maintenance, inspection, alteration and repair of in-service metallic piping systems. The API 570 examination is designed to determine if applicants have such knowledge.

This certification program benefits employers and the industry as a whole by helping to:

- Provide a continued high level of safety through the use of inspectors specialized in process piping
- Improve management control of process unit inspection, repair, alteration and re-rating
- Reduce the potential for inspection delays resulting from regulatory requirements

Body of Knowledge

- Corrosion rates and inspection intervals
- Weld joint and casting quality factors
- Linear thermal expansion calculations
- Calculation of minimum thickness for internal pressure
- Calculate maximum allowable working pressure
- Pressure testing procedures and calculations
- In-service repairs relating to 570
- ASME V Non Destructive Testing procedures
- Impact testing requirements
- Preheat and post weld heat treatment
- Welding procedure qualification and procedure review
- General rules for welding and examination in API and ASME
- Damage Mechanisms as per API 571 (570 selection only)

DURATION: 3 MONTHS ONLINE FOLLOWED BY 8 DAYS CLASSROOM

The course provides participants with the knowledge necessary to pass the exam and includes:

- Successfully pass the API 570 Piping Inspector certification exam
- Effectively use major codes: ASME B16.5 & B31.3; ASME B&PV Sections V & IX
- Perform all basic piping calculations needed for the API exam
- Use API's codes during inspection, repairs, and alterations of piping
- Review welding procedures (WPS/PQR) and welder performance qualifications (WPQ)



API 653 STORAGE TANK INSPECTOR

The API 653 Aboveground Storage Tank Inspector must have a broad knowledge base relating to tank inspection and repair of aboveground storage tanks, and will satisfy the minimum qualifications specified in API Standard 653, Tank Inspection, Repair, Alteration, and Reconstruction.

This certification program benefits employers and the industry as a whole by helping to:

- Improve management control of repair, reconstruction and maintenance
- Reduce the potential for inspection delays
- Provide a continued high level of safety through the use of highly specialized and experienced inspectors



Body of Knowledge

- | | |
|--|---|
| • Corrosion rates and inspection intervals | • Impact testing requirements |
| • Joint efficiencies | • Establishing weld sizes for shell and roof openings |
| • Static head calculations | • Settlement evaluation |
| • Calculation of minimum thickness for internal pressure including bottom plates | • Welding procedure qualification and procedure review |
| • Calculate maximum allowable working pressure | • General rules for welding and examination in API and ASME |
| • Pressure testing procedures and calculations | • Damage Mechanisms as per API 571 (653 selection only) |
| • In-service repairs relating to 653 | |
| • ASME V Non Destructive Testing procedures | |

DURATION: 3 MONTHS ONLINE FOLLOWED BY 8 DAYS CLASSROOM

The course provides participants with the knowledge necessary to pass the exam and includes:

- Successfully pass the API 653 storage tank Inspector certification exam
- Effectively use major codes: API 650 and ASME B&PV Sections V & IX
- Perform all tank calculations needed for API exam
- Use API's codes during inspection, repairs, and alterations of tanks
- Review welding procedures (WPS/PQR) and welder performance qualifications (WPQ)

API 580 RISK BASED INSPECTION

		IMPACT				
		VERY LOW 0.05	LOW 0.1	MEDIUM 0.2	HIGH 0.4	VERY HIGH 0.8
VERY LIKELY 90%		0.05	0.09	0.18	0.36	0.72
LIKELY 70%		0.04	0.07	0.14	0.28	0.56
POSSIBLE 50%		0.03	0.05	0.10	0.20	0.4
UNLIKELY 30%		0.02	0.03	0.06	0.12	0.24
RARE 10%		0.01	0.01	0.02	0.04	0.08

API welcomes highly specialised inspectors, engineers, other professionals across the entire petrochemical industry to obtain the API 580 Risk Based Inspection certification as a validation of their profound knowledge of Risk Based Inspection (RBI).

RBI has quickly become one of the industry's premiere instruments and preferred methods of inspection planning. The API 580 certification will add significant value to your professional credentials, demonstrating to your employers and clients that you have obtained a high level of proficiency and understanding in this very important field.

The API 580 training is an on-line only training course lasting 3 months. This interactive on-line training provides the study required to take the 580 examination. The examination is based only on the API 580 document, there are no supporting codes for the ICP examination.

We also offer a practical Risk Based Inspection course for in-company training. Unlike the exam preparation courses, our practical course also includes the methodology covered by API 581. This 3 day course will introduce API 580, 581 and 571 and how they compliment each other.

Delegates will have the opportunity to conduct RBI assessments using real world inspection reports and data to produce a technically concise inspection plan containing the correct inspection techniques and locations.

DURATION: 3 MONTHS ONLINE

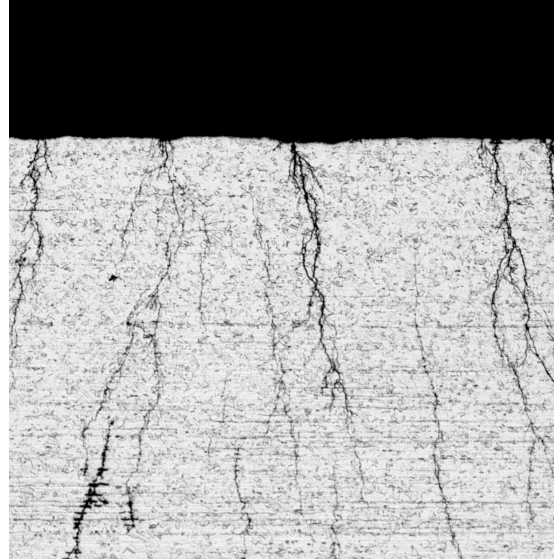
The course provides participants with the knowledge necessary to pass the exam and includes:

- The Basic Concepts of RBI
- Risk Management and Risk Reduction
- Inspection Optimization
- Relative Risk vs. Absolute Risk
- Introduction to Risk-based Inspection
- Risk Assessment and Management
- Mitigation
- Types of Assessment
- Planning
- Data and Information Collection
- Identifying Deterioration Mechanisms and Failure Modes
- Probability of Failure
- Consequence of Failure

API 571 CORROSION AND MATERIALS

Similar to the API 580 certification, highly specialized inspectors, engineers, other professionals across the entire petrochemical industry can obtain the API 571 Corrosion and Materials certification as a validation of their knowledge on damage mechanisms.

API RP 571-2011 is the latest edition that describes damage mechanisms affecting equipment in the refining and petrochemical industries. A key first step in managing equipment safety and reliability is the identification and understanding of the various damage mechanisms.



Proper identification of damage mechanisms is also required when implementing the API Inspection Codes (API 510, API 570, API 653) and in carrying out risk based inspection (RBI) per API 580 and API 581. When performing a fitness-for-service (FFS) assessment using API 579, the damage mechanisms need to be understood and need to be considered when evaluating the remaining life.

The on-line course aims to provide the participants with a thorough understanding of the various damage mechanisms contained in the latest edition of API RP 571-2011 that can affect process equipment, the type and extent of damage that can be expected, and how this knowledge can be applied to the selection of effective inspection methods to detect size and characterize damage. The 66 damage mechanisms to be discussed in this corrosion short course are common to a variety of industries including refining and petrochemical, pulp and paper, and fossil utility.

DURATION: 3 MONTHS ONLINE

The course provides participants with the knowledge necessary to pass the exam and includes:

- Wet H₂S cracking
- Reheat cracking
- Sulfuric acid corrosion
- Polythionic acid stress corrosion cracking
- Dissimilar metal weld (DMW) cracking
- CO₂ corrosion
- Corrosion under insulation (CUI),
- Caustic corrosion,
- Soil corrosion
- Sulfide stress corrosion cracking
- Graphitic corrosion
- Phosphoric acid corrosion
- Brittle fracture
- Mechanical fatigue
- Chloride stress corrosion cracking
- PLUS MANY MORE!

API 577 WELDING INSPECTION AND METALLURGY



The objective of this certification program is to provide documented evidence of advanced knowledge and expertise in the area of Welding Inspection and Metallurgy based on the information contained in API RP 577.

API 577 is an excellent reference code covering several welding techniques, basic metallurgy and inspection methods.

This valuable qualification demonstrates that inspectors, welders, engineers or QA/QC personnel have obtained excellent knowledge in welding processes.

The course provides the understanding of the welding requirements for fabrication, inspection and testing requirements of ASME Codes for new construction and how they work with API Codes for post construction inspection, repairs and alterations.

It provides the process, oil, gas, petrochemical and other process industries with the assurance that personnel trained and certified under this internationally recognised programme have the required knowledge and experience for the job in the field.

The training is conducted on-line with lecturer support when required.

DURATION: 3 MONTHS ONLINE

The course provides participants with the knowledge necessary to pass the exam and includes:

- Welding inspection
- Welding processes
- Welding procedures
- Welding materials
- Welder qualification
- Welding procedure review
- Non Destructive Examination
- Metallurgy
- Refinery and Petrochemical plant welding issues
- Terminology and symbols
- Actions to address improperly made production welds

API 579 FITNESS FOR SERVICE

Fitness-For-Service (FFS) is essential guideline for a run-repair-replace decision making process to help determine if pressurised equipment containing flaws that have been identified by inspection can continue to operate safely for certain period of time.

The methods covered by FFS are suitable, compatible and in some cases required with major inspection codes and standards (i.e. API 510, 570 and 653). Applicable to most types of pressurized equipment, piping and storage tanks where flaws and damage/degradation has been detected or identified.



This training course covers API 579-1/ASME FFS-1 with a focus on the Level 1 & 2 assessment procedures and their practical implementation. The students should be able to complete by themselves in a confident manner at least Level 2 assessments; coupled with strong design code knowledge and inspection experience.

Discussion on damage mechanisms and the importance of identification, inspection techniques for flaw characterisation, remaining life considerations, remediation methods and methods for life extension of damaged equipment is also included. Attendees will complete numerous worked examples.

We make this course as realistic as possible by presenting NDT examination reports for delegates to extract the data from. In the real world this is how these assessments will be conducted, we don't just provide the numerical data to feed into the calculations. We want to ensure our delegates know how to extract this information, sometimes from reports that may not contain all the data required. This allows them to identify what further inspection would be necessary to accurately assess the item.

DURATION: 4 DAYS CLASSROOM

The course provides participants with following knowledge:

- Damage Mechanisms and their associated damage modes and failure modes
- Conduct level 1 and 2 assessments for the following damage modes;
 - Part 4 General Metal Loss
 - Part 5 Local Metal loss
 - Part 6 Pitting
 - Part 9 Cracking
 - Part 12 Dents, Gouges, Dent & Gouge combinations
- For in-company training, further parts can be covered by increasing course duration

API 1169 PIPELINE CONSTRUCTION INSPECTOR



This course is designed to assist individuals who are scheduled to take the API 1169 Pipeline Inspector Certification Examination. The course consists of 5 days of class work and is based on the American documents in the API Effectivity Sheet and the API Body of Knowledge.

Whether you're an experienced inspector or just beginning on this exciting career path, becoming an API certified Pipeline Construction Inspector is your first step in career advancement. Demonstrate you have the knowledge, skills and professionalism required to get the job done right.

The API 1169 Pipeline Inspector Certification is relatively new to the industry. Developed by oil and gas experts, this certification became public knowledge in late 2014. While responses from the oil & gas sector were initially gradual, the API 1169 program grew substantially in 2016, with training for the API 1169 exam in high-demand.

INGAA & CEPA both mandate all Pipeline Inspectors have the API 1169 Certification by 2018. The API 1169 Certification is meant to ensure the industry is full of exceptional knowledge and skill.

API have implemented strict minimum qualification requirements for undertaking the ICP exam. 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.

Refer to the API.org website for further information on the requirements.

DURATION: 5 DAYS CLASSROOM

The course provides participants with the knowledge necessary to pass the exam and includes:

- American Petroleum Institute and ASME Boiler and Pressure Vessel Code ASME IX & V
- Use API's codes during construction, inspection, repairs, and alterations of Pipelines
- Review of Welding Procedures (WPS / PQR) and Welder Performance Qualifications (WPQ)
- Study confines of ASME B31.8 and B31.4
- Study requirements of Code of Federal Regulations (USA) 29 CFR 1910, 1926, 40 CFR 112, 122, 49, 192, 195
- Environmental Protection Agency (EPA) Requirements
- CS-S-9 Pressure Testing (Hydro/Pneumatic) Safety Guidelines, and many more

API SOURCE INSPECTOR FIXED EQUIPMENT

Source Inspection is a quality inspection in which Buyer requires the quality check before the material is received. The 'Buyer' or its representative performs a quality inspection at the vendor's location to make sure all requirements are fulfilled in accordance to codes, standards and specifications.

The 'Buyer' can be anybody who orders equipment or parts such as pressure equipment or its parts (base materials, flanges, valves, welding consumables etc.), piping spools, structures etc.



Company supplier quality programs have long had the need for a minimum standard of competency regarding inspectors working on fixed equipment and rotating equipment assignments around the world within the oil and gas industry. Industry expectations are that individual inspector certifications will be mandatory, by many clients and projects, sometime in the near future.

The API Source Inspector certification program was developed in cooperation with industry experts. It qualifies individuals (employees of end-users and individual contractors) who perform the important task of supplier quality surveillance. The Source Inspector has been defined as the individual responsible for:

- Examining fabricated and manufactured equipment and materials at a supplier's facility
- Confirming that the supplier's quality management system is being utilized effectively

SIFE - Source Inspector Fixed Equipment focuses primarily on pressure containing equipment and structural equipment, including: vessels, columns/towers, heat exchangers, piping, valves, pressure relief devices, tubulars, and associated structural fabrications.

DURATION: 5 DAYS CLASSROOM

The course provides participants with the knowledge necessary to pass the exam and includes:

- Project specific Source Inspection planning activities
- Source Inspection performance
- Examination Methods, Tools and Equipment
- Final Acceptance
- Manufacturing and Fabrication (M&F) Processes
- Pressure Vessels - materials, construction, dimensional checks
- Piping - valves, flanges and fittings

API SOURCE INSPECTOR ROTATING EQUIPMENT



Source Inspector Rotating Equipment is the second certification in the Source Inspector Suite. This certification, developed in cooperation with industry experts, focuses primarily on Rotating Equipment, including but not limited to: pumps, gears, compressors, turbines and associated appurtenances.

The certification content is used as the basis for providing a systematic approach to risk-based source inspection in order to provide confidence that mechanical rotating equipment being purchased meet the minimum requirements as specified in the project documents and contractual agreements.

The Source Inspector Examination contains 100 multiple-choice questions targeting core knowledge necessary to perform source inspection of mechanical rotating equipment. The focus of the exam is on source inspection issues and activities rather than design or engineering knowledge contained in the reference standards.

The bulk of the questions address mechanical rotating equipment inspection/surveillance which are typically known by persons who have experience working as source inspectors or persons intending to work as source inspectors who have studied the material during their exam preparation.

The scope of the syllabus is expansive, covering topic such as inspection planning, source inspection performance, materials, non destructive testing and manufacturing.

DURATION: 5 DAYS CLASSROOM

The course provides participants with the knowledge necessary to pass the exam and includes:

- Project specific Source Inspection planning activities
- Source Inspection performance
- Examination Methods, Tools and Equipment
- Final Acceptance
- Manufacturing and Fabrication (M&F) Processes
- 250 to 1,000 Horsepower Pumps (Centrifugal Pumps)
- General Purpose Turbines
- Lube Oil Systems
- Reciprocating Compressors
- Rotary-Type Compressors
- Axial/Centrifugal Compressors
- Gears: Reducers and Increaseers

ASME PCC 2 PRESSURE EQUIPMENT REPAIR APPRECIATION

This course is a must for everyone who handles inspection and repair of pressure equipment. The ASME PCC-2 standard provides methods for repair of equipment and piping after it has been placed in service.

These repair methods include the relevant design, fabrication, examination, and testing practices and may be temporary or permanent.

The course first deals with the appropriate inspection and flaw assessment methods and then describes suitable choice and methodology of repair of components when repair is deemed necessary.

Guidance for the applicability of repair methods based on the type of damage and how to plan and carry out various types of repairs including welding repairs, mechanical repairs, non-welding repairs, testing and inspection of repairs is provided.

This training course is designed to give logical step-by-step procedures for selecting and implementing the correct remedial action. The participants would be explained in detail the mechanics of adopting and applying the rules of ASME PCC-2, for day-to-day use in their professional work, by explaining several real life case studies and problem solving.

Not only will the various repair methods be covered, but an overview on the most common welding processes such as GTAW, SMAW and GMAW., including advantages and disadvantages of each.



DURATION: 4 DAYS CLASSROOM

The course provides participants with the knowledge necessary to decide on various types of repairs and includes:

- Overview of welding processes
- How to choose between '3 R' options i.e. "Run, Repair and Replace".
- Address the repair of components when repair is deemed necessary
- Deciding on temporary or permanent repairs
- Choosing the appropriate repair plan
- Examination and testing of repaired equipment
- Repair Documentation

PRESSURE TESTING PROCEDURES AND BEST PRACTICE



Pressure testing of newly manufactured and installed pipework and pressure vessels is an essential part of ensuring that assets meet their operational requirements.

However, the number of reported failures indicate that current processes and available guidance relating to pressure testing are not adequate, both in factory and on site.

This course is designed for the specific needs of industrial clients that perform and/or witness pressure testing on vessels, pipework, valves and similar pressure system components. It will provide delegates with the essential knowledge of the methods, procedures and legal requirements applying to pressure testing, including hazard assessment and risk reduction relevant to HSE & industry codes of practice.

It outlines the responsibilities in the Health and Safety Executives Guidance note GS4 "Safety Requirements for Pressure Testing" and how to meet those requirements. A review of case studies is conducted to demonstrate where 'things go wrong' and how to prevent such incidents in the future.

A significant emphasis will be placed on the 'Test Supervisors' roles and responsibility and the safe systems of work that must be in place. The safe system of work provides written instructions to test engineers and requires sufficient information to ensure correct:

DURATION: 1 DAY CLASSROOM

The course provides participants with the knowledge necessary to ensure pressure test are conducted safely:

- Understand code requirements towards pressure tests
- Develop pressure test procedures
- The supervisor roles and responsibilities
- Describe risk assessment and method statements for pressure testing



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