COURSE OVERVIEW FE0938
API SIFE Source Inspector Fixed Equipment
(API Exam Preparation Training)

Course Title
API SIFE Source Inspector Fixed Equipment *(API Exam Preparation Training)*

Course Reference
FE0938

Course Duration/Credits
Five days/4.0 CEUs/40 PDHs

Course Date/Venue

Session(s)	Date	Venue	Exam Window	Exam Closing Date
1	February 02-06, 2025	Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE	March 14-April 04, 2025	January 03, 2025
2	April 21-25, 2025	Ajman Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE	July 11-August 01, 2024	May 02, 2025
3	July 20-24, 2025	Al Azziya Hall, The Proud Hotel Al Khobar, KSA	November 07-28, 2025	August 29, 2025
4	October 12-16, 2025	Boardroom , Warwick Hotel Doha, Doha, Qatar	November 07-28, 2025	August 29, 2025
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 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 is designed to provide an up-to-date knowledge and skills for source inspectors for the purpose of providing a consistent method of Supplier/Vendor (S/V) quality surveillance for the oil, petrochemical and gas industries. It is intended for individuals willing to take the API Source Inspector Certification examination.

The course covers the process of providing quality surveillance of materials, equipment and fabrications being supplied for use in the oil, petrochemical and gas Industry, including upstream, midstream and downstream segments. Participants will be trained in providing a systematic approach to risk-based source inspection in order to provide confidence that materials and equipment being purchased meet the minimum requirements as specified in the project documents and contractual agreements. The course will guide source inspectors acting on behalf of purchasers to determine whether manufacturers/fabricators own quality systems have functioned appropriately, such that the purchased equipment and materials will meet contractual agreements.

This course focuses primarily on pressure containing and structural equipment (fixed equipment) including: vessels, columns/towers, heat exchangers, piping, valves, pressure relief devices, tubulars, and associated structural fabrications.

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 SIFE exam and have enough knowledge and skills to pass such exam in order to get the API SIFE certification
- Analyse the scope, purpose, definitions, abbreviations and acronyms of API SIFE guide
- Describe the source inspection management program as well as the project specific source inspection planning activities
- Evaluate the source inspection performance including the inspector conduct and safety and review of project documents
- Review the various API, ASME, ASNT, AWS and SSPC Codes, Standards and references
- Carryout the welding procedures, qualifications, NDE procedures and project schedules
- Perform source inspection and recognize the source inspection work process scheduled planning events
- Employ proper methods of report writing and identify the nonconformance/deviations
- Carryout source inspection project continuous improvement and source inspector continuous improvement
- Recognize the examination methods, tools and equipment
- Identify the various nondestructive examination (NDE) techniques
- Apply destructive testing, pressure/leak testing, performance/functional testing, surface preparation/coatings inspections and final acceptance
- Illustrate the manufacturing and fabrication processes, welding processes and welding defects
- Identify the metallurgy issues associated with manufacturing and fabrication processes
- Discuss pressure vessels, piping and structural components

Who Should Attend

This course provides a wide understanding and deeper appreciation of fixed equipment inspection in the source according to API source inspection and quality surveillance of fixed equipment guide for those who are engaged in inspection of bought out materials and components for fixed equipment like pressure vessels, piping and structural. Further, the course is beneficial to all QA/QC engineers and inspectors, project engineers and inspectors of industrial plants and pressure equipment inspectors of inspection bodies and agencies.

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.

Training Fee

Dubai	**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.
Abu Dhabi	**US$ 7,500** per Delegate. This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Al Khobar	**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.
Doha	**US$ 8,000** per Delegate. This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Exam Fee

US$ 620 per Delegate + **VAT**

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 Documents

API Recommended Practice 588, *Recommended Practice for Source Inspection and Quality Surveillance of Fixed Equipment, 1st Edition, 2019*

API Recommended Practice 572, *Inspection of Pressure Vessels,4th Edition, December 2016, Sections 3 and 4*

API Recommended Practice 577, *Welding Inspection and Metallurgy, 3rd Edition, October 2020*

API Recommended Practice 578, *Material Verification Program for Alloy Piping Systems, 3rd Edition, February 2018*

API Standard 598, *Valve Inspection and Testing, 10th Edition, October 2016*

American Welding Society (AWS)

AWS D1.1, *Structural Welding Code- Steel, 24th Edition, 2020*

American Society of Nondestructive Testing (ASNT)

Recommended Practice SNT TC-1A *Personal Qualification and Certification in Nondestructive Testing Personnel, 2011 Edition*

American Society of Mechanical Engineers (ASME) - Boiler and Pressure Vessel Code (BPVC)

Section II *Materials*, Part A, B, C, D, 2021

Sections SA-20, SA-370, SA-6

Section V *Nondestructive Examination*, 2021

All definitions in Subsection A, Article 1, Appendix 1 and Subsection B, Article 30, SE- 1316.

Articles 1, 4, 6, 7, 9, 10, and 23 (section 797 only)

Section VIII *Rules for Construction of Pressure Vessels, Division 1 and 2,* 2021

All definitions in Appendix 3

Sections UG 4 – 15; UG 75 – 85; UG 90 – 103; UG 115 - 120

Sections UW 1 – 3; UW 5; UW 26 – 42; UW 46 – 54; UW 60, UCS 56 -57

Section IX *Welding and Brazing Qualifications, Welding only*, 2021

QW 100 – 190; QW 200 – 290; QW 300 - 380

QW 400 – 490; QW 500 - 540

ASME B31.3, *Process Piping*, 2018 Edition - Chapters I, III, IV, V, VI

ASME B16.5 *Pipe Flanges and Flanged Fittings*, 2020 - Chapters 1-8

Society for Protective Coatings (SSPC)

SSPC – PA 2 *Procedure for Determining Conformance to Dry Coating Thickness Requirements, 2022*

SSPC Surface Preparation Guide, the following sections only:

SSPC-SP1 *Solvent Cleaning*, 2015
SSPC-SP3 *Power Tool Cleaning*, 2004
SSPC-SP5 *NACE 1 White Metal Blast Cleaning*, 2007
SSPC-SP6 *NACE 3 Commercial Blast Cleaning,*2007
SSPC-SP7 *NACE 4 Brush-Off Blast Cleaning*, 2007
SSPC-SP10 *NACE 2 Near-White Blast Cleaning*, 2007
SSPC-SP11 *Power Tool Cleaning to Bare Metal*, 2013

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 Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

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 **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.

- 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.

Accommodation

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

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. Allen Noguera, BSc, ASNT-NDT, AWS-CWI, API, is a **Senior Inspection Engineer** with almost **20 years** of extensive industrial experience within the **Oil & Gas**, **Refinery** and **Petrochemical** industries. His expertise widely covers in the areas of **Source Inspection** Performance, **Source Inspection** Planning, **Source Inspection** Continuous Improvement, **Source Inspection** Management, **Pressure Vessel** Inspection, **Piping** Inspection, **Risk Based** Inspection, **Above Ground Storage** Inspection, **Corrosion & Material** Management, **Refractory** Inspection, **Welding Inspection & Metallurgy**, **Asset Integrity** Management, **Welding & Fabrication**, **Piping** Inspection, **Pipelines**, Risk-Based Inspection (**RBI**), Fitness-for-Service (**FFS**), Asset Integrity Management (**AIM**), **Plant Inspection & Corrosion** Engineering, **Metallurgy**, **Corrosion** & **Prevention**, **Material** Selection & Properties, **Welding** Technology, Welded Steel Tanks for Oil Storage, **Cathodic Protection**, **Damage Mechanisms**, **Mechanical & Metallurgical** Failure Mechanisms, Atmospheric & Low-Pressure **Storage Tank Inspection**, **Welding Inspection** & **Metallurgy** Pressure Design Thickness Calculation, **Metallurgy**, **Corrosion**, **Mechanical Integrity** Assessment, **Vibration Analysis** and Non-destructive Testing (**NDT**). Further, he is also well-versed in AutoCAD 2015, Inventor Autodesk 2014, Caesar II 4.5, SAP PM & MM, Primavera Plot Planner, Ansys CFX, Meridium, Ultrapipe, RBI Software, Raptor and Crystall Ball. He is currently the **Senior Assessment Integrity Engineer** of INSERCOR for ECOPETROL wherein he is responsible in reviewing, assessing and updating integrity management and inspection data for pressure systems, pipelines and structures.

During his career life, Mr. Noguera has gained his practical and field experience through his various significant positions and dedication as the **Welding Inspector**, **Senior Assessment Integrity Engineer**, **Offshore/Onshore Assessment Integrity Engineer**, **Project Mechanical Engineer**, **Mechanical Inspector Engineer Mechanical Integrity Consultant**, **NDT Consultant** and **Senior Technical Instructor/Lecturer** for various international companies like the PDVSA, Cicontrol C.A., Inspecta S.A., Techint Group C.A., Refinería de Sonangol and INSERCOR for ECOPETROL.

Mr. Noguera has a **Bachelor's** degree in **Industrial Mechanical Engineering** from the **Universidad de Los Andes** and holds a **Diploma** in **Industrial System Reliability** from the **Universidad Simon Bolivar**. Further, he is a **Certified Instructor/Trainer**, a Certified Source Inspector-Fixed Equipment (**API-SIFE**), a Certified Source Inspector-Rotating Equipment (**API-SIRE**), a Certified Refractory Personnel (**API-936**), a Certified Above Ground Storage Tank Inspector (**API 653**), a Certified Pressure Vessels Inspector (**API 510**), a Certified Piping Inspector (**API 570**), a Certified Welding Inspection & Metallurgy Professional (**API 577**), a Certified Risk Based Inspector (**API 580**), a Certified Corrosion & Material Specialist (**API 571**), a Certified Pipeline Construction Inspector (**API 1169**) and an **ASNT-NDT Certified Level III ASNT-TC-1A** in Radiographic Testing (**RT**), Magnetic Particle Testing (**MT**), Visual Testing (**VT**), Magnetic Flux Leakage Testing (**ML**), and Liquid Penetrant Testing (**PT**). Moreover, he is a **Certified Welding Inspector** from the American Welding Society (**CWI-AWS**), an **Authorized Inspector** from the National Board for Boilers and Pressure Vessels and has further delivered innumerable trainings, courses, seminars, conferences and workshops internationally.

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

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Scope/Purpose***
0930 – 0945	*Break*
0945 – 1030	***Definitions, Abbreviations & Acronyms***
1030 – 1115	***Training***
1115 – 1200	***Source Inspection Management Program***
1200 – 1300	*Lunch*
1300 – 1400	***Project Specific Source Inspection Planning Activities*** *Equipment Risk Assessment • Development of a Source Inspection Project Plan • Development of Inspection & Test Plans • Selection of an Inspector • Coordination of Inspection Events • Report Review*
1400 – 1500	***Source Inspection Performance*** *Inspector Conduct & Safety • Review of Project Documents*
1500 – 1515	*Break*
1515 – 1645	***API Codes & Standards*** *API RP 572 (Inspection Practices of Pressure Vessels) • API RP 577 (Welding Inspection & Metallurgy) • API RP 578 (Material Verification Program for New & Existing Alloy Piping Systems) • API 598 (Valve Inspection & Testing)*
1645 – 1700	***Distribute Homework & Recap***
1700	*End of Day One*

Day 2

0730 – 0800	*Review Homework Answers*
0800 – 0945	***ASME Codes & Standards*** *ASME BPVC Section II-Materials (Part A, B, C & D) • ASME BPVC Section V-Nondestructive Examination • ASME BPVC Section VIII, Division 1-Rules for the Construction of Pressure Vessels • ASME BPVC Section VIII, Division 2-Rules for the Construction of Pressure Vessels-Alternative Rules • ASME BPVC Section IX-Welding & Brazing Qualifications Procedures, Welders, Brazers, & Welding & Brazing Operators • ASME B31.3-Process Piping • ASME B16.5-Pipe Flanges & Flanged Fittings*
0945 – 1000	*Break*
1000 – 1100	***ASNT Standards*** *ASNT SNT-TC-1A*
1100 – 1200	***AWS Standards & References*** *The Welding Inspection Handbook • AWS D1.1 Structural Welding Code*
1200 – 1300	*Lunch*
1300 – 1400	***SSPC Standards*** *SSPC-PA 2 Coating Applications Standard No. 2, Procedure for Determining Conformance to Dry Coating Thickness Requirements • SSPC Surface Preparation Guide*
1400 – 1500	***Welding Procedures & Qualifications***

1500 – 1515	*Break*
1515 – 1600	***NDE Procedures***
1600 – 1645	***Project Schedules***
1645 – 1700	***Distribute Homework & Recap***
1700	*End of Day Two*

Day 3

0730 – 0800	*Review Homework Answers*
0800 – 0930	***Performing the Source Inspection***
0930 – 0945	*Break*
0945 – 1045	***Source Inspection Work Process Scheduled Planning Events*** *Pre-purchase Meeting (Prior to Contract Placement) • Pre-inspection Meeting (Prior to Start of Fabrication)*
1045 – 1200	***Report Writing***
1200 – 1300	*Lunch*
1300 – 1400	***Nonconformance/Deviations***
1400 – 1500	***Source Inspection Project Continuous Improvement***
1500 – 1515	*Break*
1515 – 1600	***Source Inspector Continuous Improvement***
1600 – 1645	***Examination Methods, Tools & Equipment*** *Review & Confirmation of Materials of Construction • Dimensional Inspections • Visual Inspections*
1645 – 1700	***Distribute Homework & Recap***
1700	*End of Day Three*

Day 4

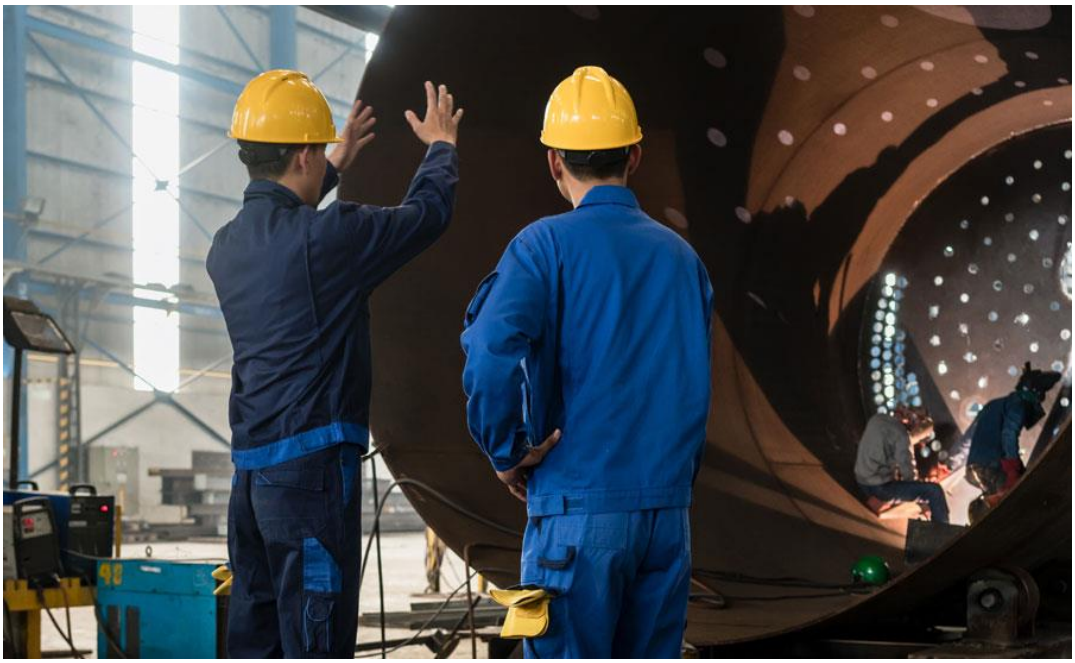
0730 – 0800	*Review Homework Answers*
0800 – 0900	***Nondestructive Examination (NDE) Techniques*** *General • Penetrant Testing (PT) • Magnetic Testing (MT) • Radiographic Testing (RT) • Ultrasonic Testing (UT) • Hardness Testing (HT) • Positive Material Identification (PMI)*
0900 – 1000	***Destructive Testing***
1000 – 1015	*Break*
1015 – 1100	***Pressure/Leak Testing***
1100 – 1200	***Performance/Functional Testing***
1200 – 1300	*Lunch*
1300 – 1400	***Surface Preparation/Coatings Inspections***
1400 – 1500	***Final Acceptance***
1500 – 1515	*Break*
1515 – 1600	***Manufacturing & Fabrication (M&F) Processes***
1600 – 1645	***Welding Processes & Welding Defects*** *Casting • Forging • Machining • Assembly*
1645 – 1700	***Distribute Homework & Recap***
1700	*End of Day Four*

Day 5

0730 – 0800	*Review Homework Answers*
0800 – 1000	***Metallurgy Issues Associated with Manufacturing & Fabrication Processes*** *The Structure & Metals • Physical Properties of Metals • Mechanical Properties of Metals • Hardness & Hardenability of Metals • Weldability of Metals • Preheating & Postweld Heat Treatment (PWHT)*
1000 – 1015	*Break*
1015 – 1200	***Pressure Vessels*** *Vessel Methods of Construction • Vessel Materials of Construction • Vessel Internal Components • Vessel Design & Construction Standards • Dimensional Check of Pressure Vessels • Heat Exchangers*
1200 – 1300	*Lunch*
1300 – 1500	***Piping*** *Valves • Flanges • Fittings*
1500 – 1515	*Break*
1515 – 1630	***Structural Components***
1630 – 1645	***Course Conclusion***
1645 – 1700	*Presentation of Course Certificates*
1700	*End of Course*

Practical Sessions

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



Course Coordinator

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