

API 653



Tank Inspection, Repair, Alteration, and Reconstruction

Sculpt Your Skills for the Tank Inspection, Repair, Alteration, and Rerating of Pressure Vessel Systems!

27th November - 01st December 2023 at Kuala Lumpur, Malaysia

11th - 15th December 2023 at Bandung, Indonesia

INSTRUCTOR



Chintamani M. Khade

International Certified Trainer

→ SUMMARY OF PROFESSIONAL ACHIEVEMENT

- API 580 - Specialist Risk Based Inspection - Certificate #50552
- API 570 - Authorized Process Piping Inspector - Certificate #38775
- API 510 - Authorized Pressure Vessel Inspector - Certificate #36311
- API 653 - Authorized Aboveground Storage Tank Inspector - Certificate #27295
- API 571 - Specialist Materials & Damage Mechanisms - Certificate #50420
- API SIRE - Authorized Source Inspector Rotary Equipments - Certificate #63572
- NDE Level III (ASNT) (UT, MT, RT, PT, VT, LT, ET, & IR) - Certificate #126348
- LLevel III (EN 473 / ISO 9712) (UT, MT, PT, RT & VT) - Cert. No 07-502-04964
- Welding Inspector (TWI) (CSWIP 3.1) - Certificate #58523

→ PARTIAL CLIENT LIST

- RIL (Reliance Industries Limited)
- GASCO
- Bangchak Petrochemicals
- Bharat Oman Refinery Limited
- Standard Rolling Mills
- Dacon Inspection Services, Thailand
- Cryeng Australia
- ZADCO
- Qatar Petroleum, Massaid Refinery
- Ras Gas
- QAFCO

→ SUPPORTED BY

→ ATTEND THIS INTENSIVE COURSE TO MASTER:

- Main concepts and technical content of API 653 Code and the other reference codes
- Concept of metal degradation.
- Design fundamentals of storage tank (API 650).
- Evaluation of tank integrity of shell, bottom and roof. Thickness calculations for intended design conditions or revised design conditions.
- How to clarify the need of Cathodic Protection and lining of tank bottom.
- Evaluation and decision for remedial action in Tank Settlement.
- How to estimate remaining life of tank and decide inspection intervals. Be able to choose the appropriate inspection tools and inspection intervals.
- Carry out re-rating, remaining life and retirement thickness calculations.

Limited Attendees

The course has limited seats to ensure maximum learning and experience for all delegates.

Certificate of Attendance

You will receive a Certificate of Attendance bearing the signatures of the Trainer upon successful completion of the course. This certificate is proof of your continuing professional development.

Interactive Training

You will be attending training designed to share both the latest knowledge and practical experience through interactive sessions. This will provide you with a deeper and more long-term understanding of your current issues.

High Quality Course Materials

Printed course manual will provide you with working materials throughout the course and will be an invaluable source of reference for you and your colleagues afterward. You can follow course progress on your laptop with soft copies provided.

RESERVE NOW

→ PROGRAM OVERVIEW

“The program promotes safe storage and material handling of petroleum products in a manner that protects employees, the public, and the environment. The program was developed with the participation storage tank owner/users, and establishes a uniform national program that will assist state and local governments in aboveground storage tank regulations.”

– API.org on API 653 Certification

American Petroleum Institute (API)

initiated an Aboveground Storage Tank Inspector Certification Program with the issuance of Supplement 1 to API 653, Tank Inspection, Repair, Alteration, and Reconstruction.

This 5 days training course is designed to give a detailed discussion on the required engineering knowledge for In-service Storage tanks with emphasis on syllabus published by API (Body of Knowledge). The preparatory course will clarify basic intentions of all code prescribed for study, how to interpret code rulings and at the end, built-up the confidence among the participants for taking decisions.

The course is divided into six main areas: Basic Storage tank design engineering i.e. API 650, In-service inspection techniques (API 653/ RP 575/ RP 577), Damage mechanisms (API 571), Cathodic protection (API RP 651) and lining of tank bottom (API RP 652), calculations of retirement thickness and other skills required for delivery of quality job & safe operation. The participants will receive comprehensive course notes, illustrated with practical case studies, main punch-points of the course to impart knowledge to participants.

With Mr. Chintamani’s extensive involvements in the facilities inspection, as well as his practical coaching and mentoring approaches, this course not only prepare the candidates to pass API 653 examination with confident, it will also advance the appreciation of storage tank facilities and thus to broaden the technical knowledge base in order to avoid unplanned shutdown and reduce expenses!

→ AUDIENCE

This course will specifically benefit Engineers, Supervisors, and Managers from the following disciplines:

- Mechanical Engineering
- Inspection
- Maintenance & Operations
- Technical & Engineering
- Corrosion Engineer

and design persons involved in integrity assessment of in-service tanks, repairs and replacement of old tanks.

Each attendee must bring a **Laptop computer** with Microsoft operating system and **Scientific Calculator**

→ WHY YOU SHOULD ATTEND

- To ensure that all objectives of the course matches yours, all PetroSync programs are developed after intensive and extensive research within the industry
- PetroSync programs focus on your immediate working issues to ensure that you are able to apply and deliver immediate results in real work situations
- Application and implementation of industry knowledge and experience are the drivers for our course design, not theoretical academic lectures
- PetroSync training focuses on practical interactive learning tools and techniques including case studies, group discussions, scenarios, simulations, practical exercises and knowledge assessments during the course. Invest a small amount of your time to prepare before attending the course to ensure maximum learning
- PetroSync follows a rigorous selection process to ensure that all expert trainers have first-hand, up-to-date and practical knowledge and are leaders of their respective industrial discipline

→ IN-HOUSE SOLUTIONS

SAVE COST • IMPROVE PERFORMANCE • REDUCE RISK

PetroSync understands that in current economic climate, getting an excellent return on your training investment is critical for all our clients. This excellent training can be conducted exclusively for your organization. The training can be tailored to meet your specific needs at your preferred location and time.

We will meet you anywhere around the globe. If you like to know more about this excellent program, please contact on +65 3159 0800 or email general@petrosync.com

→ PROGRAM SCHEDULE

| | |
|---------------|---------------------------|
| 08:00 | Registration (Day1) |
| 08:10 – 10:00 | Session I |
| 10:00 – 10:15 | 1 st Tea Break |
| 10:15 – 12:30 | Session II |
| 12:30 – 13:30 | Lunch Break |
| 13:30 – 15:00 | Session III |
| 15:00 – 15:15 | 2 nd Tea Break |
| 15:15 – 16:00 | Session IV |
| 16:00 | End of Day |

*Schedule may vary for each training

AGENDA OULTINE

DAY-1

Fundamentals of Storage Tank Design & Construction (API 650)

- Allowable stress values shell, roof and bottom Design
- Material selection
- Impact test requirement of API 650
- Impact test results
- Shell thickness calculations
- Bottom plate thickness calculations
- Roof plates calculations
- Nozzle openings calculations
- API 650 Requirements for Storage Tank fabrication, erection, NDT and leak testing

DAY-2

Understanding of Storage Tank Inspection Code (API 653) Part 1

- Introduction, scope, definitions and organization of API 653
- Intervals and scope of inspections
- Data evaluation and corrosion assessment of roof, shell, and bottom.
- Estimation of corrosion rate
- Inspection and testing practices of API 653
- Evaluation for brittle failure

DAY-3

Understanding of Storage Tank Inspection Code (API 653) Part 2

- Repairs, alterations & reconstruction of storage tanks
- Tank relocation and re-erection
- Replacement of tank bottom, hot tapping on tank shell.
- Detail discussions on material corrosion and degradation (API 571), NDT of tank repairs, leak testing

DAY-4

Storage tank Inspection (study of other codes and standards)

- Discussions on cathodic protection methods against soil corrosion (API RP 651)
- Recommended practices for inspection of storage tanks (API RP 575)
- Introduction to Sec IX, Case studies of checking of PQR & WPS

DAY-5

Discussions on Corrosion Protection & Quality of Welding

- Discussions on Lining of bottoms of storage tanks (API RP 652)
- Discussions on API RP 577 and Welding Inspection
- Understanding the difference between Inspection and Examination and Various NDE methods to detect flaws in metals.
- Understanding rules imposed by ASME Sec V for various NDE techniques
- Final examinations Feedback and Concluding

API 653 - Tank Inspection, Repair, Alteration, and Reconstruction



INSTRUCTOR

Chintamani M. Khade

International Certified Trainer

Chintamani M. Khade is a specialist on Materials & Damage Mechanisms. He has more than 19 years experience as Department Head of NDT, Welding Inspection, In Service Inspection in India, Middle East, Southeast Asia & Africa. Currently, he is the technical director of Empirical Technocrats.

He conducted training for various API Certification Preparatory, NDE methods, ASNT & ISNT Level III, advanced NDT Methods, welding inspection, Construction codes, ASME Sections II, Section IX, Section V, ASME Sec. VIII div. 1, ASME B31.1, ASME B31.3, AWS D1.1, UT, MT, PT, VT, RT & Basic for ISO 9712 level 2 & level 3.

He has been a team leader of 100+ multidiscipline NDT technicians, metallurgists & Welding inspectors during various shutdown jobs in Qatar Petroleum, Massaid refinery, Qatar in March – June 2005, March - April 2009 & October November 2009. Executed in service inspection of nearly 800 pressure vessels, Static & rotary equipments, Plant process piping & storage tanks as shutdown coordinator.

Summary of Professional Achievement:

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- Level 3 (EN 473 /ISO 9712) (UT, MT, PT, RT & VT) - Cert. No 07-502-04964
- Welding Inspector (TWI) (CSWIP 3.1) - Certificate #58523

Partial Client List:

- | | |
|---|---|
| ● RIL - Reliance Industries Limited | ● McNally Bharat Engg. Co. Ltd., |
| ● GASCO | ● Ravi Industries |
| ● Bangchak Petrochemicals | ● Pune & Sprklet Engineering, Mumbai |
| ● Bharat Oman Refinery Limited | ● Pudmjee Paper mills, Ltd., |
| ● Standard Rolling Mills | ● Thermax Ltd., Pune |
| ● Dacon Inspection Services, Thailand | ● Walchandnagar Industries Ltd., |
| ● Cryeng Australia | ● TEMA Exchangers India Ltd., Gujrat |
| ● ZADCO | ● Century Enka Ltd., Pune |
| ● Qatar Petroleum, Massaid Refinery | ● Rajashri Polyfils Gujrat |
| ● Ras Gas | ● Garware Polyestr s Ltd, Aurangabad |
| ● QAFCO | ● Larson & Toubro Ltd. Gujrat |
| ● Oman LNG | ● Essar Oil Ltd., Gujrat |
| ● Shell | ● Intervolve (I) Ltd, Pune |
| ● ExxonMobil | ● Oman Methanol Co., Sohar, Oman |
| ● Total | ● Emirates Industrial Laboratory, Dubai, UAE |
| ● Chevron | ● Olayan Descon Engg. Co., Jubail & Yanbu works KSA |
| ● EQUATE | ● HEMRL, ISRO |
| ● GASCO | ● TPT petrochemical Thailand |
| ● ATB Caldereria sPa.,Italy | ● Polyprima-Indorama, Indonesia |
| ● Hindustan Lever Ltd. | ● Numaligarh Refineries Ltd. Assam. |
| ● Tororo Cement Industries Ltd., Tororo, Uganda | ● Sparklet Engineers |
| ● Qatar Fuel Additives CO. | ● Al Shabia, Dubai |
| ● ADGAS, DAS ISLAND, Abudhabi - UAE | ● TUV SuD, Jubail |
| ● L&T Hazira | ● KSA |
| ● Ranoli | ● Yantrik Engineers |
| ● Tata projects Ltd., | ● NLNG |
| ● JP Industries Ltd., | ● NNPL |
| ● Premier Ltd. | ● Injo technical Services |

INVESTMENT PACKAGE

Please checklist the package that you are attending!

| API 653 - Tank Inspection, Repair, Alteration and Reconstruction Schedules | LOCATION | PRICE |
|---|------------------------|-----------|
| <input type="checkbox"/> 27 th November - 01 st December 2023 | Kuala Lumpur, Malaysia | USD 3,150 |
| <input type="checkbox"/> 11 th - 15 th December 2023 | Bandung, Indonesia | USD 3,150 |

* All prices are subject to change without notice and are not guaranteed, except that prices for an order that have been accepted by PetroSync is not subject to change after acceptance

* Price is nett excluding Withholding Tax if any and will be quoted separately. Please send us the withholding tax payment receipt.

* We can help to register API exam certification which incur **USD 100** administration fee per application.

* For API Exam late application, there will be additional **USD 150** borne by the participant

DELEGATE DETAILS

1st Delegate Name _____ Mr Mrs Ms Dr Others

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

2nd Delegate Name _____ Mr Mrs Ms Dr Others

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

3rd Delegate Name _____ Mr Mrs Ms Dr Others

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

4th Delegate Name _____ Mr Mrs Ms Dr Others

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

*Please fill all the details including mobile number. This help us to contact participant if they are late in class or if there is any urgent update (through whatsapp/call)

INVOICE DETAILS

Attention Invoice to: _____

Direct Line Number: _____ Fax: _____

Company: _____ Industry: _____

Address: _____ Postcode: _____

Country: _____ Email: _____

Please note:

- Indicate if you have already registered by Phone Fax Email Web

- If you have not received an acknowledgement before the training, please call us to confirm your booking.

PAYMENT METHODS

By Credit Card

By Direct Transfer : Please quote invoice number(s) on remittance advice

PetroSync Global Pte Ltd Bank details:

Account Name : PetroSync Global Pte Ltd

Bank Name : DBS Bank Ltd

Bank Code : 7171 • Bank Swift Code : DBSSSGSGXXX • Branch code : 288

Account No : 0288-002682-01-6-022 (USD)

Bank Address : 12 Marina Boulevard, Level 3, Marina Bay Financial Centre Tower 3, Singapore 018982

All bank charges to be borne by payer. Please ensure that PetroSync Global Pte Ltd receives the full invoiced amount.

Confirmation

I agree to PetroSync's payment terms and cancellation policy.

Signature : _____

Date : _____

PAYMENT TERMS : Payment is due in full at the time of registration. Full payment is mandatory for event attendance.

PROGRAMME CONSULTANT

Contact : Cay Aagen

Email : registration@petrosync.com

Phone : +65 3159 0800

TERMS AND CONDITIONS

DISCLAIMER

Please note that trainers and topics were confirmed at the time of publishing; however, PetroSync may necessitate substitutions, alterations or cancellations of the trainers or topics or location (classroom / Virtual). As such, PetroSync reserves the right to change or cancel any part of its published programme due to unforeseen circumstances. Any substitutions or alterations will be updated on our web page as soon as possible.

DATA PROTECTION

The information you provide will be safeguarded by PetroSync that may be used to keep you informed of relevant products and services. As an international group we may transfer your data on a global basis for the purpose indicated above. If you do not want us to share your information with other reputable companies, please tick this box

CANCELLATION POLICY

Delegates who cancel after the training is officially confirmed run by email, are liable to pay the full course fee and no refunds will be granted. You may substitute delegates at any time as long as reasonable advance notice is given to PetroSync.

In the event that PetroSync cancels or postpones or change the trainer or change the training location (classroom / virtual) of an event for any reason and that the delegate is unable or unwilling to attend in on the rescheduled date, you will receive a credit voucher for 100% of the contract fee paid. You may use this credit voucher for another PetroSync to be mutually agreed with PetroSync, which must occur within a year from the date of postponement.

PetroSync is not responsible for any loss or damage as a result of the cancellation policy. PetroSync will assume no liability whatsoever in the event this event is cancelled, rescheduled or postponed due to any Act of God, fire, act of government or state, war, civil commotion, insurrection, embargo, industrial action, or any other reason beyond management control.

CERTIFICATE OF ATTENDANCE

80% attendance is required for PetroSync's Certificate of Attendance.

Find us on Social Media:

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DETAILS

Please accept our apologies for mail or email that is incorrectly addressed.

Please email us at registration@petrosync.com and inform us of any incorrect details. We will amend them accordingly.

CHARGES & FEE(S)

- For Payment by Direct TelegraphicTransfer, client has to bear both local and oversea bank charges.

- For credit card payment, there is additional 4% credit card processing fee.