

Sculpt Your Skills for the Inspection, Repair, Alteration, and Rerating of Oil & Gas In-Service Piping Systems!

05th - 09th August 2024 at Kuala Lumpur, Malaysia 18th - 22nd November 2024 at Kuala Lumpur, Malaysia 02<sup>nd</sup> - 06<sup>th</sup> December 2024 at Bandung, Indonesia



INSTRUCTOR Chintamani M. Khade **International Certified Trainer** 

## SUMMARY OF PROFESSIONAL ACHIEVEMENT

- API 570 Authorised Process Piping Inspector Certificate #38775
- API 571 Specialist Materials & Damamge Mechanisms Certificate #50420
- API 653 Authorised Aboveground Storage Tank Inspector -Certificate #27295
- API 510 Authorised Pressure Vessel Inspector Certificate #36311
- API 580 Specialist Risk Based Inspection Certificate #50552
- API SIRE Authorised Source Inspector Rotary Equipments -Certificate #63572
- NDE Level III (ASNT) (UT, MT, RT, PT, VT, LT, ET & IR) Certificate #126348
- 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

- Oman LNG
- Shell
- ExxonMobil
- Total
- Chevron
- EQUATE
- **GASCO**
- RIL Reliance Industries Limited
- GASCO
- **Bangchak Petrochemicals**
- ATB Caldereria sPa., Italy

- Hindustan Lever Ltd.
- **Qatar Fuel Additives**
- L&T Hazira
- Ranoli
- JP Industries Ltd.,
- Premier Ltd.
- Oman Methanol Co.
- Thermax I td
- TUV SuD, Jubail
- KSA
- Many more.

## ATTEND THIS INTENSIVE COURSE TO MASTER:

- API 570: Inspection methodologies, remaining life calculations, degradation mechanisms, repair & re-rating of in-service piping system and relations to ASME codes (1.5 day)
- ASME Section V: Principles and application of Non-Destructive Examination (0.5 day)
- ASME section IX: Welding & brazing requirements and procedures (0.5 day)
- ASME B31.3: Design review, welding & heat treatment, inspection, leak testing of process piping (1 day)
- ASME B16.5: Design & repair of pipe flanges and flanged fittings (0.5)
- API RP 571: Damage Mechanisms affecting fixed equipment in refineries, eg. fractures, fatigue, corrosion, sulfidation, MIC, HTTA etc (0.5 day)
- API 574: Inspection practices for piping system components (¼ day)
- API RP 577: Welding inspection and metallurgy recommended practices (1/4 day)
- API RP 578: Material verification program for new and existing alloy piping systems (¼ day)

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.

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.

**SUPPORTED BY** 



















# PROGRAM OVERVIEW

"To improve management control of process unit inspection, repair, alteration and rerating; and to reduce the potential for inspection delays resulting from regulatory requirements."

-- API.org on API 570 Certification

## American Petroleum Institute (API)

Piping Inspection Code 570 Inspection, Repair, Alteration, and Rerating of In-Service Piping Systems is recognized and used with confidence worldwide. The Piping Inspector Certification Program (PICP) is developed for the continual high level of efficiency and safety through emphasizing professional credibility and process integrity.

Process piping system is one of the critical production assets in process industry. Organizations recognize the need to maintain authorized inspection agency and technically assess qualified piping engineers and inspectors to ensure facilities are at top performance. Therefore, API 570 certification is one of the most sought after professional competency that enables inspectors to be actively involved in the improvement of industry & environmental health and safety performance, reinforcement management control, compliance of inspection capabilities.

This 5 day Piping Inspector course is based on API 570/574, API RP 577/ 578, ASME B16.5/ B31.3 and ASME BPVC Section V/ Section IX. It is to promote the recognition of fitness-for-service concepts to evaluate in-service degradation of piping system. 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 570 examination with confident, it will also advance the appreciation of piping 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
- OAOC

and technical personnel with 2-3 years of experience in the management and planning of inspection and maintenance activities of piping system at upstream oil & gas facilities, refineries, process plants and petrochemical facilities.

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
- 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

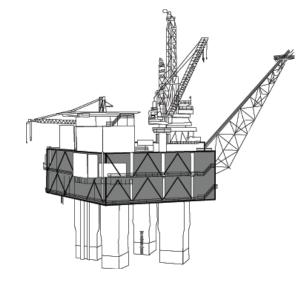
PetroSync understands that in current economic climate, getting an excellent return on your training investment is critical for all our clients. This excellent training can be conducted exclusively for your organization. The training can be tailored to meet your specific needs at your preferred location 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 <sup>st</sup> 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 <sup>nd</sup> Tea Break
15:15 – 16:00	Session IV
16:00	End of Day

<sup>\*</sup>Schedule may vary for each training



# API 570 Piping Inspector Course



## **BENCH-MARK QUIZ** INTRODUCTION TO API 570 CERTIFICATION

### ASME B 31.3 (Process Piping)

- Scope and applicability
- Service/Fluid Classification
- Joint Quality Factors
- Allowable stresses
- Design for Internal Pressure
- Design of permanent blanks
- Impact testing for Low temperature service
- Acceptance of Impact test results
- Welding requirements-Preheat Temperatures
- Post Weld Heat Treatment
- Hardness Testing after PWHT
- Inspection and testing
- Non Destructive Examination Requirements
- Acceptance Criteria
- Leak testing-Hydrostatic
- Leak testing-Pneumatic
- Precautions during Pneumatic test
- Service leak test
- Thermal Expansion of Piping-Table C1

## ASME B16.5 (Pipe Flanges and Flanged Fittings)

Overview of pipe flanges and flanged fittings



## ASME B16.5 (Pipe Flanges and Flanged Fittings)

- Scope
- Pressure Temperature Ratings
- Materials
- Dimensions
- System pressure Test

## API 570 (Inspection, Repair, Alteration, and Rerating of In-Service Piping Systems)

- Scope & Definitions
- Owner/user inspection organization
- · API authorized piping inspector qualification and certification
- Inspection and testing practices
- Risk-based inspection
- Preparation for inspection
- · Inspection for specific types of corrosion and cracking
- Types of inspection and surveillance
- Thickness measurement locations
- Thickness measurement methods
- Inspection of welds in-service
- Inspection of flanged joints.



### API 570 (Inspection, Repair, Alteration, and Rerating of In-Service Piping Systems)

- Frequency and extent of inspection
- · Piping service classes
- Inspection intervals
- Extent of visual external and cui inspections
- Inspection data evaluation, analysis, and recording
- Corrosion rate determination
- Maximum allowable working pressure determination
- Repairs, alterations, and rerating of piping systems
- Welding and hot tapping
- · Inspection of buried piping
- Types and methods of inspection
- Frequency and extent of inspection
- Repairs to buried systems



#### ASME Boiler and Pressure Vessel Code Section IX (Welding and brazing Qualifications)

- Review of a WPS and PQR
- Determine if WPS and PQR are in compliance with ASME Sec. IX
- Essential and Nonessential Variables
- Determine that the number and type of mechanical tests are correct tests
- Determine whether the results are acceptable

### ASME Boiler and Pressure Vessel Code Section V (Non-Destructive Examination)

- Article 1, general requirements:
- · Article 2, radiographic examination
- Article 6, liquid penetrant examination
- Article 7, magnetic particle examination (yoke and prod techniques only)
- Article 9, visual examination
- Article 10, leak testing

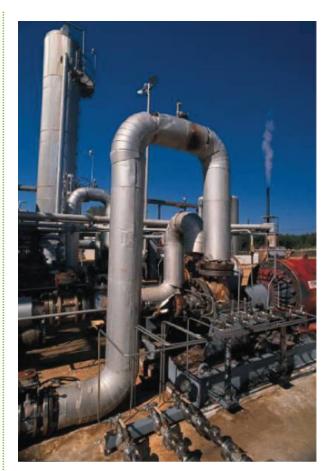
#### **API Recommended Practice 574**

•Inspection of piping, tubing, valves, and fittings



### API RP 571 (Damage Mechanisms in the Refining Industry)

- Brittle Fracture
- Thermal Fatigue
- Erosion/Erosion Corrosion
- Mechanical Fatigue
- Vibration Induced Fatigue
- Atmospheric Corrosion
- Corrosion Under Insulation (CUI)
- Boiler Water Condensate Corrosion
- Flue Gas Dew Point Corrosion
- Microbiological Induced Corrosion (MIC)
- Soil Corrosion
- Sulfidation
- Chloride Stress Corrosion Cracking (CISCC)
- Caustic Stress corrosion Cracking (Caustic Embrittlement)
- High Temperature Hydrogen Attack (HTTA)



#### **API Recommended Practice 577**

• Welding inspection and metallurgy

#### **API Recommended Practice 578**

• Material verification program for new and existing alloy piping systems

## API 570 - Piping Inspector Course





# 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.

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- Welding Inspector (TWI) (CSWIP 3.1) Certificate #58523

#### PARTIAL CLIENT / PROJECT 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
- OAFCO
- Oman LNG
- Shell
- ExxonMobil
- Total
- Chevron
- **EQUATE**
- **GASCO**
- ATB Caldereria sPa.,Italy
- Hindustan Lever Ltd.
- Tororo Cement Industries Ltd., Tororo, Uganda
- Oatar Fuel Additives CO.
- ADGAS, DAS ISLAND, Abudhabi UAE

- L&T Hazira
- Ranoli
- Tata projects Ltd.,
- JP Industries Ltd.,
- Premier Ltd.
- McNally Bharat Engg. Co. Ltd.,
- **Ravi Industries**
- Pune & Sprklet Engineering, Mumbai
- Pudmjee Paper mills, Ltd.,
- Thermax Ltd., Pune
- Walchandnagar Industries Ltd.,
- TEMA Exchangers India Ltd., Gujrat
- Century Enka Ltd., Pune
- Rajashri Polyfils Gujrat
- Garware Polyestrs Ltd, Aurangabad
- Larson & Toubro Ltd. Gujrat
- Essar Oil Ltd., Gujrat
- Many more.

Account No

: 0288-002682-01-6-022 (USD)

Please checklist the package that you are attending!

API 570 - Piping Inspector Course Schedules	LOCATION	PRICE		
05 <sup>th</sup> - 09 <sup>th</sup> August 2024	Kuala Lumpur, Malaysia	USD 3,250		
18 <sup>th</sup> - 22 <sup>nd</sup> November 2024	Kuala Lumpur, Malaysia	USD 3,250		
02 <sup>nd</sup> - 06 <sup>th</sup> December 2024	Bandung, Indonesia	USD 3,250		

- \* 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, the	re will be additional <b>USD 150</b> borne by the part	icipant
]	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 $\square$
	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:	
*Please fill all the details including mobile num is any urgent update (through whatsapp/call)	er. This help us to contact participant if they are late in class o	or if there
	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  - If you have not received an acknowledgement bef	Fax ☐ Email ☐ Web ☐ ore the training, please call us to confirm your booking.	
P	AYMENT METHODS	
☐ By Credit Card		
By Direct Transfer : Please quote in	voice number(s) on remittance advice	
PetroSync Global Pte Ltd Bank details: Account Name: PetroSync Global Pte Bank Name: DBS Bank Ltd	• •	

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.

#### 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.

## **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.

Find us on Social Media:

- PetroSync Global Pte Ltd
- PetroSync
- PetroSync

#### CHARGES & FEE(s)

- For Payment by Direct TelegraphicTransfer, client has to bear both local and oversea bank
- For credit card payment, there is additional 4% credit card processsing fee.

## 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.