



An Intensive 5 Day Training Course

Construction Quality Control On Site

24 - 28 Jun 2018, Dubai



This course is Designed, Developed, and will be Delivered under
ISO Quality Standards





Construction Quality Control On Site

WHY CHOOSE THIS TRAINING COURSE?

Structural engineers are encountering many problems due to the hot climate and the other environmental conditions. Quality control in construction of the reinforced concrete structure is a complete function which involves management, statistics and engineering.

This training course case study and practical sessions will be for oil and gas projects as most projects are time driven and need a high quality to maintain the sustainable facilities along the production filed life.

In a hot climate, it needs more precaution in concrete industry and on the construction of the building to match with the requirement to this weather. All the examples and real case studies are for oil and gas projects.

In this training course, the focus is on using the statistics as a tool to control all the activities of the construction projects, especially the concrete product. The quality control of the concrete is illustrated in scope of the different codes and specifications. This training course will deliver a state-of-art methodology to control the concrete quality, introduces ways to control the specification recommendations in detail, and all the new modern the techniques and methodology used in concrete industry to enhance the concrete quality. The course will cover the main Quality Control concept for Shell specifications and other international oil and gas companies.

This training course will feature:

- Different codes and standards for Quality Control
- Quality control test (video presentation)
- Effects of quality in project sustainability
- Main skills and required knowledge for QC On Site
- QC procedure for concrete in a hot climate
- QC for steel structure activities

WHAT ARE THE GOALS?

By the end of this training course, participants will:

- Familiarise all quality management techniques and procedures
- Learn available non-destructive testing for concrete and steel structure projects
- Understand the practical tools to control the concrete and the whole project that includes field-testing and the required laboratory facilities
- Familiarise various techniques for evaluating the structures under construction
- Learn modern field measurements such as concrete strength
- Familiarise with all quality control techniques in hot climate

WHO IS THIS TRAINING COURSE FOR?

This training course is intended for structural and civil engineers responsible for the Quality Control and Quality Assurance, with the most recent non-destructive testing for concrete and steel structure.

This training course is also beneficial for Construction Engineers, Project Managers, Construction Managers, Quality Assurance and Quality Control professionals.

HOW WILL THIS TRAINING COURSE BE PRESENTED?

This training course will utilize a variety of proven adult learning techniques to ensure maximum understanding, comprehension and retention of the information presented. The daily workshops will be highly interactive and participative. Videos and photos will be used for illustration.



DAILY AGENDA

Day One

Competency Description: As an engineer you need to know the main element of quality management system on site.

Key behaviours:

- Understand the approach of ISO9001 and its application in oil and gas projects
- Understand the practical QA & QC for different oil & gas companies
- Understand the hot climate precaution and definition

Topics to be covered:

- Total Quality management system
- Quality assurance
- Quality control
- Who will perform the quality control?
- Quality management constrain in oil and gas projects
- Pareto chart
- How to control the concrete from ready mix plant
- How to control concrete casting onsite
- Coefficient of variation
- Auditing the construction site quality
- Precaution in design mix in hot climate

Day Two

Competency Description: As an engineer you need to know the construction methods and ways of QC for main structure foundations and building in oil and gas plant.

Key behaviours:

- Understand the approach of codes for QC
- Understand the roles of the inspector onsite
- Understand the main element of concrete QC
- Understand the main element of steel structure QC
- Understand piping and pipeline construction

Topics to be covered:

- Codes recommendation for the quality control
- Codes and specifications limitations as ACI and BS
- Comparison on different non-destructive testing
- Construction ways in hot climate
- The nature of concrete variability
- Concrete materials properties
- Aggregate QC
- Cement QC
- Concrete mix QC
- Steel sections QC
- Check laminar and porosity in steel sections
- Example of QC of concrete foundations construction under vibrating machine



Day Three

Competency Description: As an engineer you need to know the ways of concrete QC onsite.

Key behaviours:

- Understand the concept of quality statistics
- Understand the hot climate effect on concrete mix
- Understand the QC for HSC
- Understand the characteristic of steel structure erection QC

Topics to be covered:

- Basic statistics
- Collecting a data for evaluations
- Statistics for the quality control data
- Evaluating the grade of the quality
- Concrete design mix
- Precaution in design mix in hot climate for remote area
- QC for fresh concrete
- Quality control for concrete forum
- Pouring concrete in hot climate
- Workability test for concreted
- Cube and cylinder test
- The replacement of the steel bars
- The permissible deviation in erection steel structure
- Material receiving, storage and preservation at site
- Interface between E & I, piping and structure in construction activities

Day Four

Competency Description: As an engineer you need to know the NDT methods and the concrete durability.

Key behaviours:

- Understand the relation between QC onsite and design approach
- Understand the concrete NDT dynamic load characteristic
- Understand the relation between QC and concrete durability

Topics to be covered:

- Core test
- Rebound hammer
- Lok test
- Load test for floor deck under machine
- Ultrasonic test
- Corrosion phenomena affect quality
- Different corrosion protection system
- QC for corrosion protection system for oil and gas plant
- Wooden and steel from QC
- Steel reinforcing QC
- Procedure of QC onsite
- Case study for foundation in gas plant

Day Five

Competency Description: As an engineer you need to know the ways of steel structure QC on site.

Key behaviours:

- Understand the welding procedure
- Understand the ways of QC for steel structure
- Understand the overview the differences between the NDE methods
- Relation between QC and IMS for oil and gas plant

Topics to be covered:

- Materials used in welding steel structure
- QC for Equipment preservation and installation for static equipment
- QC for tank construction
- QC for foundation construction and machine installation
- The precaution in welding process
- Anchor bolts QC
- The reasons of welding defects
- Overview of the 5 methods (PT,MP,RT,UT,VI)
- Integrity management system for oil and gas plants

QUALITY CERTIFICATION

ISO 29990 : 2010 Certified

ISO 9001: 2015 Certified

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COURSE DATES, VENUES AND FEES

24 - 28 Jun 2018	Dubai	\$4,750
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This fee is inclusive of Documentation, Lunch and Refreshments

Please use **BLOCK CAPITALS** to fill in this form. It is important that you read carefully through all information before starting to complete the form.

REGISTRATION DETAILS

Family Name: _____ **First Name (Mr./Ms.):** _____
Position: _____ **Company:** _____
Mailing Address: _____
Telephone: _____ **Mobile:** _____ **Fax:** _____ **Email:** _____

AUTHORISATION

Authorisation By: _____
Position: _____ **Company:** _____
Mailing Address: _____
Telephone: _____ **Mobile:** _____ **Fax:** _____ **Email:** _____

IN-HOUSE TRAINING

Maximize your training budget and have several members of your staff, who require specific training, to attend with the advantage of not incurring additional travel costs when attending a 'public' training courses & seminars.

Would you like a PetroKnowledge training course delivered at a time or location to suit you? Would you like PetroKnowledge to tailor a course from our comprehensive library of programmes? Or would you like us to create an entirely new, bespoke course to suit the exact needs of your organisation?

Working in partnership with our clients, PetroKnowledge provides an enjoyable, creative learning experience that enables participants to develop their skills and knowledge. We can deliver not only generic, off-the-shelf courses from our extensive learning portfolio, but we can provide tailored as well as bespoke learning on any aspect of skill development or knowledge. Our in-house courses are conducted by the same expert trainers who conduct PetroKnowledge public courses so you can be assured they will fulfill the learning objective of any organisation



BOOKING TERMS & CONDITIONS

Booking

- Bookings for courses can be made via our website (petroknowledge.com) or by contacting our Registration Desk on +971 2 5577389 or at reg@petroknowledge.com
- For on-line bookings, please select the course that you require and click on the "Register Now" button, following the instructions step by step
- Upon receipt of booking in order, enrollment on the respective training course will be confirmed by Registration Team with all necessary documentation

Invoicing and Payment

- Our fees include course presentation, relevant materials, physical & digital documentation, lunch and refreshments served during entire training. Accommodation charges are not included in the course fees
- Course fees are payable upon booking unless a valid, authorized Purchase Order is provided and accepted
- Invoices will be sent via email/courier to the ID/name and address provided
- We prefer to have the fees payment in our account before the start of training course. However, if your company has a different payment policy, the same should inform us in advance
- The currency of fees is in US Dollars (USD). Payments can be made in USD or UAE local currency AED (Arab Emirates Dirhams) either by Bank Transfer or by Credit Card. Our Bank Account details will be provided on the Invoice
- Please note that we do accept payment by cash, in USD or AED, only for the last minute bookings

Cancellation of Courses

- It may be necessary for PetroKnowledge to amend or cancel any course, course times, instructors, dates or published fees due to unforeseen circumstances and we reserve the right for such changes
- Any amendments will be advised before the course start date and any bookings already paid in full will not be subject to increased fees

Cancellation by Client

- Once you have completed your booking, received your confirmation of enrollment and a dated payment Invoice, you are deemed to have a contract with PetroKnowledge. You reserve the right to cancel this contract given the below terms
- All cancellations must be received in writing at reg@petroknowledge.com and info@petroknowledge.com at least 14 days prior to the training
- After the cancellation period has expired, consideration may be given, on a case to case basis, if a registered delegate nominates a substitute on the same course, shifts to next session of the course or moves to a new course
- For a cancellation request made on or before the statutory 14 day cancellation period, a refund may be given or a credit note issued which can be used against future course fees
- A 25% administration fee (of the total course fee at the time of booking) will be charged for any cancellations made outside of the statutory cancellation period

Attendance Certificate

- The daily course schedule should be accurately followed to ensure undeterred implementation of our training
- All delegates, who participated in their course throughout, will receive the Certificate of Completion on the last day
- Please report any foreseeable absences to a PetroKnowledge representative or to your sponsors directly
- An absence of three (3) or more sessions of the course will invalidate your eligibility for the Certificate of Completion

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