



المركز العالمي للتدريب والتطوير
International Centre For Training & Development



ADVANCED

Quality Control for Building Construction Projects



ACTVET
Abu Dhabi Centre for
Technical and Vocational
Education and Training
مركز أبوظبي
للتعليم والتدريب
التقني والمهني

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Course Introduction:

The purpose of this course is to present the measures to be taken to determine the compliance with plans and specifications through test and systems of inspection during construction. Construction quality control is defined as a planned system of activities that ensures that a facility was constructed as specified in the design. The system includes inspections, verifications, audits, and evaluations of materials and workmanship necessary to determine and document the quality of the constructed facility.

Course Objectives:

Upon successful completion of this course, the delegates will be able to:

- Define construction quality control and assurance and apply quality management techniques and procedures and the non-destructive testing for concrete and steel structures
- Implement total management system using the ISO 9001 standards, quality assurance, quality control and who will perform, Pareto chart, process chart for ready mix plant, coefficient of variation and the quality of auditing the construction site
- Determine the nature of concrete variability
- Practice quality control procedure for concrete form that includes pouring concrete in hot and cold weather, workability test for concrete, cube and cylinder test, the replacement of steel bars and etc.
- Apply proper welding procedure by understanding the welding symbol and precaution awareness in welding process
- Discuss non-destructive test and the various type of procedures including magnetic particle test, penetration test, radiographic test and ultrasonic test
- Define the defects from RT Film

Who Should Attend?

This course is intended for structural and civil engineers, road construction engineers and construction supervision of road projects. This course is also suitable to those who are interested in understanding the aspect of QA/QC in the construction industry such as engineers, supervisor's construction managers and other interested parties.

Course Outline:

Day 1:

Total Quality Management System

- ISO 9001 Requirement
- Quality Assurance
- Quality Control
- Pareto Chart
- Process Chart for Ready Mix Plant
- Coefficient of Variation
- Auditing the Construction Site Quality

Day 2:

The Nature of Concrete Variability

- Concrete Materials Properties
- Aggregate QC
- Cement QC
- Concrete mix QC
- Submittal Steel Sections QC
- Check Laminar and Porosity in Steel Sections

Day 3:

Quality Control for Concrete Forum

- Pouring Concrete in Hot and Cold Weather
- Workability Test for Concrete
- Cube and Cylinder Test
- The Replacement of the Steel Bars
- The Permissible Deviation in Erection Steel Structure
- Comparison between different Non-destructive Test
- Core Test
- Rebound Hammer
- Lok Test

- Load Test
- Ultrasonic Test

Day 4:

Welding procedure

- Materials that is using in Welding in Steel Structure
- Understanding the Welding Symbol
- The Precaution in Welding Process
- The Reasons of Welding Defects

Day 5:

Differentiate between Non-destructive Test

- Magnetic Particle Test Procedure
- Penetration Test Procedure
- Radiographic Test Procedure
- Radiographic Test Precaution
- How to Define the Defects from RT Film
- Ultrasonic Test Procedure

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Fees:

To be advised as per course location. This rate includes participant's manual, Hand-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:30	Recess (Prayer Break & Lunch)
13:30 - 15:00	Last Session

