Quality Control and Assurance For Concrete and Steel Structure Projects Training

Description

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This course is intended for structural and civil engineers who are interested in the quality control and QA with the most recent non-destructive testing for concrete and steel structure.

Course Objective

The participants will be familiar with all quality management technique and procedure and the available non-destructive testing for concrete and steel structure project.

Course Outline

- ISO 9001 requirement
- Total Quality management system
- Quality assurance
- Quality control
- Who will perform the quality control?
- Pareto chart
- Process chart for ready mix plant
- Coefficient of variation
- Auditing the construction site quality

The nature of concrete variability

- Concrete materials properties
- Aggregate QC
- Cement QC
- Concrete mix QC
- Submitall steel sections QC
- Check laminar and porosity in steel sections

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

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.

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