

Control of Concrete Quality in Hot Climates

Project Management for the Finest Concrete Quality Control

Introduction

Using statistics as a tool to control all aspects of building projects, particularly the concrete product, is the main focus of this training course on Control of Concrete Quality in Hot Climates. The range of the various codes and specifications serves as an illustration of the concrete quality control. This training programme will cover the most recent, cutting-edge methods for improving the quality of concrete, as well as detailed methods for controlling specification recommendations and all the latest, cutting-edge methods and techniques employed by the concrete industry.

The scorching weather and other environmental factors are causing structural engineers a lot of trouble. When building a reinforced concrete structure, quality control is a multifaceted process involving engineering, administration, and statistics.

The training course's case studies will focus on oil and gas projects because these are typically time-sensitive and require superior quality to sustain sustainable facilities over their productive lives. In hot climates, greater care must be taken in the concrete industry and during building construction to ensure that the structure is built to withstand the elements. This training course's examples are all taken from actual case studies of oil and gas projects.

Included in this Course N Carry training programme will be:

- Various Standards and Codes for Quality Assurance
- Examination of Quality Control (Video Presentation)
- Impact of Quality on Project Sustainability and Durability of Structure
- Key Competencies and Knowledge Needed for On-Site QC
- Concrete Quality Control and Precaution in a Hot Environment
- Good Quality's Impact on Structure Lifespan

Objectives

Following this training session, attendees will:

- Acquaint yourself with the methods and procedures related to quality management.
- Find out what non-destructive testing is available for projects involving concrete structures.
- Recognise the useful instruments for managing the concrete as well as the entire project, which entails field testing and the necessary lab space.

- Understand the many methods used to assess the structures that are being built.
- Discover how to test modern field parameters like concrete strength.
- Know every method of quality control in a heated environment.

Training Methodology

A range of tried-and-true adult learning strategies will be employed in this Control of Concrete Quality in Hot Climates training course to guarantee optimal acquisition, retention, and understanding of the material offered. There will be a lot of interaction and participation in the daily workshops. Images and videos will be utilised to provide examples.

Organizational impacts

- Enhance the quality of behaviour and organisation in
- Lower maintenance costs by improving new project quality control.
- Boost quality by becoming aware of current quality technologies and how they work in actual projects.
- Enhance the organization's investment by having a long-lasting structure.

Personal Impact

- Boost the trainee's capacity for design
- Become more knowledgeable about the most recent execution phase
- Become more proficient in the maintenance approach
- Develop the ability to improve the quality of each stage of the oil and gas project.

Who should attend?

A wide range of professionals can benefit from this Course N Carry training course, but the following are particularly noteworthy:

- Civil and structural engineers
- Engineers in Construction
- Supervisors of Projects
- Managers of Construction
- Experts in Quality Assurance and Quality Control

Course Outline

Day 1

The TQM concept

- System of Total Quality Management
- Assurance of Quality
- Control of Quality
- Who is going to handle quality control?
- Limitations of Quality Management in Oil and Gas Projects
- Pareto Graphic
- How Can the Ready-Mix Plant Concrete Be Controlled?
- How Can Onsite Concrete Casting Be Controlled?
- Variation Coefficient
- Examining the Quality of the Construction Site
- Care in the Mix of Designs in Warm Climates

Day 2

Quality Control for Materials

- Codes of Advice for Quality Assurance
- Standards and Codes Restrictions such as ACI and BS
- Comparing Various Non-destructive Testing Methods
- Methods of Construction in Warm Climates
- Concrete Variability's Nature
- Properties of Concrete Materials
- Total Quality Control
- Cement Quality Control
- Quality Control of Concrete Mix

Day 3

Quality Control for New Concrete

- Fundamental Statistics
- Gathering Information for Assessments
- Figures for the Quality Control Information
- Assessing the Grade of the Product
- Mixture for Concrete Design
- Care in the Design Mix for a Remote Area with a Hot Climate
- Quality Control for New Concrete
- Oversight of Concrete Forum Quality
- Pouring Concrete in a Warm Environment
- Test of Workability for Concreted
- Test of Cube and Cylinder
- Changing Out the Steel Bars

Day 4

QC to Preserve the Durability of Concrete

- The Most Effective Construction Methods
- Curing Techniques
- Steel and Wood from QC
- QC for Steel Reinforcing
- Continue to use concrete covers.
- The QC Onsite Procedure
- Corrosion Events Impact Productivity
- Various Systems of Corrosion Protection

Day 5

Concrete Non-Destructive Testing

- Comparing Various Non-destructive Test Core Tests
- Rebounding Hammer
- Examine
- Test of Load Under Machine for Floor Deck
- Ultrasonic Examination
- Measurements for Concrete Covers
- Case Study for Gas Plant Foundation