Site-Based Quality Control In Construction

Duration: 5 Days

Language: en

Course Code: IND13-105

Objective

Upon completion of this course, participants will be able to:

- Understand the importance of quality control within construction.
- Assess how effective quality control positively impacts the project results.
- Be familiar with all quality management techniques and procedures.
- Review available non-destructive testing for various structures, including concrete and steel.
- Utilise practical tools to control desired structures within the project, including field-testing and laboratory facilities.
- Analyse methods of evaluating the structures under construction.
- Understand common field measurements such as concrete strength.
- Evaluate how a difference in climate can influence quality control.
- Improve project investments by using effective quality control.

Audience

This course is designed for anyone responsible for maintaining quality within construction projects. It would be most beneficial for:

- Project Managers
- Operations Managers
- Construction Directors
- Site Supervisors
- Structure Inspectors
- Quality Assurance and Control Personnel
- Engineering Personnel

Training Methodology

This course uses a variety of adult learning styles to aid full understanding and comprehension. Participants will review case studies of completed quality control inspections to highlight key factors and areas where faults may have occurred.
They will be provided with all the necessary tools to carry out the learning exercises. They will partake in presentations, group discussions, video materials, and practical demonstrations to provide opportunities for participants to develop a thorough understanding of the knowledge and practical skills taught.

Summary

Quality control is crucial in ensuring the highest quality through construction projects. Managing quality efficiently has a strong influence on the outcome of the project. It can ensure greater profitability and minimise the risk of structural faults.
To maintain effective quality management, it is important to understand the quality variables. Various factors can influence the quality of structures, and these need to be assessed and adjusted to allow for the ideal outcome. Each structure can have external and internal influences on its quality, including employee workmanship, material quality and climate factors. Aligning integrity management with structure inspections is ideal for monitoring their quality.
When it comes to examining quality, there needs to be great competence relating to the methods and techniques required for quality inspections. Non-destructive tests are essential for structures, which need to be conducted accurately and confidently to guarantee the results. If the structures are not up to standard, there needs to be an in-depth process to revisit and make the necessary improvements to meet project standards.
Not only does quality management ensure the profitability of the end result, but it also confirms maximum safety from the structures and removes all possible risks and faults for the final product.

Course Content & Outline

Section 1: Introduction to Quality Management

- Defining quality management and quality control.
- Who is responsible for quality control?
- Balancing quality assurance with quality control.
- How quality control varies within different construction projects.
- Auditing construction site quality.
- Utilising a Pareto chart and calculating the coefficient of variation.
- The consequences of poor quality management.

Section 2: Non-Destructive Tests

- Defining NDT and NDE.
- The purpose of NDT within construction.
- How NDT is vital for maintaining the highest structural quality.
- The various methods of NDT and how they differentiate depending on what structure is being tested.
- The advantages and disadvantages of the common types of NDT.

Section 3: Integrity Management

- Integrating integrity management with quality control and management.

- The role integrity management plays in overall quality control.
- The concept, principles and process of integrity management.
- Establishing an integrity management plan.
- What elements must be included within an integrity plan – NDT, structure approvals, inspections and qualifications.
- Assessing situations where integrity may be lacking and how to resolve them.

Section 4: Codes and Regulations

- Reviewing all local, regional and international regulations that can influence construction functions.
- Ensuring quality control aligns with industry standards.
- Using quality control to ensure structures are in line with health and safety regulations.
- Analysing a range of structure guidelines and strictly following them throughout inspections.

Section 5: Component Properties

- What common structures that are quality controlled – concrete and steel.
- How climate and weather can influence structure quality.
- Assessing integrity, variability, preparation and workability of concrete when installing.
- Steel corrosion, reinforcement and replacement.
- Procedures and precautions for welding.

Certificate Description

Upon successful completion of this training course, delegates will be awarded a Holistique Training Certificate of Completion. For those who attend and complete the online training course, a Holistique Training e-Certificate will be provided.

Holistique Training Certificates are accredited by the British Assessment Council (BAC) and The CPD Certification Service (CPD), and are certified under ISO 9001, ISO 21001, and ISO 29993 standards.

CPD credits for this course are granted by our Certificates and will be reflected on the Holistique Training Certificate of Completion. In accordance with the standards of The CPD Certification Service, one CPD credit is awarded per hour of course attendance. A maximum of 50 CPD credits can be claimed for any single course we currently offer.

Categories

Construction & Real Estate, Engineering, Quality & Productivity

Tags

quality, Construction, Engineering, Construction Site

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the multifaceted role of construction supervisors in ensuring safety, efficiency, and successful project completion. We highlight their responsibilities, the necessity of their presence, risks they mitigate, and the importance of safety training.

YouTube Video

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