Building envelope inspection and construction

Testing Considerations for the Construction of Steel and Concrete Structures

Introduction

Inspection is the process of seeing construction to make sure it adheres to the authorised design documentation. All the inspection and testing aspects for the construction of concrete and steel structures, as well as the building envelope, will be covered in this Civil & Construction Engineering training course. People who work in the inspection and testing industry or aspire to become specialised inspectors will be able to comprehend the nature and significance of this role with the help of this training programme.

The attendees of this Building Envelope Inspection and Construction training course will have a better understanding of the various testing and inspection procedures that are necessary for a construction project in order to guarantee the calibre of the materials and the workmanship. Along with advice and recommendations for design and inspection consideration, this training programme aims to produce a durable outer building envelope system.

Included in this Course N Carry training programme will be:

- Talks about the System of Quality Management
- The Value of Testing and Inspection Procedures
- Using inspection and testing in a variety of construction contexts
- Emphasising Both Theoretical and Practical Inspection Methods
- How can a new inspection approach be included into the work domain?

Objectives

Upon completion of this training programme, learners will have an understanding of:

- Methods for Testing and Examining Engineering Materials
- Construction Workmanship in Building Construction
- Knowledgeable about NDE for welding and steel
- Possess the ability to examine the completed task
- Testing and Inspected Work in Road Construction
- The Methods and Techniques for the Examination

Training Methodology

In order to maximise knowledge, comprehension, and retention of the material provided, this Building Envelope Inspection and Construction training course on Construction & Building Envelope Inspection will make use of a range of tried-and-true adult learning approaches. There will be a lot of interaction and participation in the daily workshops. Photos and videos will be used in the illustration.

Organizational impacts

- Improve the inspection process's quality, as it has an impact on the organization's quality.
- Enhance the organization's cost-saving maintenance plan.
- Enhance the organization's investment with fresh concepts to increase the oil and gas project's sustainability.
- The income from cutting costs by building a sturdy structure through improved planning, building, or upkeep

Personal Imapct

- Improve the trainee's capacity to examine and evaluate
- Become more knowledgeable about modern repair techniques
- 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?

Those who want to learn more about the duties and obligations of building inspectors and how to improve their effectiveness may find this training session beneficial.

A broad spectrum of professionals can benefit from this Course N Carry training course:

- Architects
- Engineers
- Building Construction Inspectors in Practice
- Engineers for Projects
- NDE Lab Staff
- Technologists and Technicians working on construction projects
- Builders and Developers

Course Outline

Day 1

Quality Management System and Inspection on-site

- System of Total Quality Management
- Inspection: What Is It?
- Why is an inspection necessary?
- Which parts need a special inspection?
- What duties and roles do Special Inspectors have?

Day 2

General Guidelines for Inspections

- Inspectors in the Field
- Inspection of Steel Reinforced Bars
- Inspection of Concrete Construction
- Examining Structural Masonry
- Examination of Shotcrete
- NDT in concrete

Day 3

Inspection Guidelines for Steel Structures

- Inspection of Anchor Bolts, Dowels, and Hold-down Systems in Structural Steel
- Non-destructive Examination
- NDE Levels II and III
- Inspector of Welding
- Inspection of Fireproofing
- Method of Testing for Levelness and Flatness of Concrete Floors (F-Numbers)
- Soil Classification for Engineering Uses

Day 4

Part I: Guidelines for Soil Inspection

- Inspectors in the Field
- On-site Soil Inspection
- Inspection of Earthworks
- Inspection of Asphaltic Concrete
- Inspection of Road Construction

Part II: Guidelines for Architectural Inspection

- What is the building envelope composed of?
- Architectural and Roof Sheet Metal
- Types of Insulation and Inspection
- Examination of Wood Work

Day 5

Guidelines for Architectural Work Inspection

- Types and Inspection of Plastering and Painting
- Examining the Materials for Tiles
- External Cladding Systems
- Waterproofing below grade and on decks
- Windows, Doors, and Other Wall Openings
- Building envelope components that are compatible with blast resistance

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