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# Construction & Building Envelope Inspection

## INTRODUCTION

- Inspection is observation of construction for conformance with the approved design documents. This Civil & Construction Engineering training seminar on Construction & Building Envelope Inspection will highlight and cover all the inspection & testing aspects for concrete and steel structure construction, and building envelope. This training seminar will enable individuals, who are in the inspection and testing field or want to be a specialist inspector, to understand the nature and the importance of this function.
- This Civil & Construction Engineering training course on Construction & Building Envelope Inspection will help the attendees to understand the types of inspection and testing involved in a construction project, which are mandatory to assure the quality of materials used as well as the workmanship. This training seminar will also provide guidance and recommendations for design and inspection consideration in an effort to provide a long-lasting exterior building envelope system.

### This training seminar will feature:

- Discussions on the Quality Management System
- The Importance of Inspection and Testing Activity
- Applying the Inspection and Testing in many construction areas
- Focusing on Practical and Theoretical Ways of Inspection
- How to integrate new inspection technique into the work domain?

## OBJECTIVES

### By the end of this training seminar, participants will be familiar with:

- Testing and Inspection Techniques of Engineering Materials
- Workmanship in Building Construction
- Familiar with NDE for the Steel and Welding
- Have the capability to inspect the finishing work activity
- Testing and Inspection for Road Construction
- The Ways and Skills for the Inspection

## TRAINING METHODOLOGY

- This Civil & Construction Engineering training seminar on Construction & Building Envelope Inspection will utilise a variety of proven adult learning techniques to ensure maximum understanding, comprehension and retention of the information presented. The daily workshops will be highly interactive and participative. The illustration will depend on videos and photos.

## ORGANISATIONAL IMPACT

- Enhance the quality of inspection process which affects the organization quality
- Improve the organization maintenance scheme which reduce cost
- Improve the organization investment by new ideas to enhance sustainability of the oil and gas project
- The revenue of reduce cost by providing a durable structure by better design, construction or maintenance

## PERSONAL IMPACT

- Enhance the assessment and evaluation capability of the trainee
- Increase knowledge of up to date of repair methods
- Increase the skill for maintenance approach
- Increase the skill to enhance quality of all phases of the oil and gas projects

## WHO SHOULD ATTEND?

- This training course will benefit those who wish to become more effective by better understanding the requirements for inspections as well as the role and responsibilities of construction inspectors.

This training course is suitable to a wide range of professionals:

- Architects
- Engineers
- Practicing Building Construction Inspectors
- Project Engineers
- NDE Lab Personnel
- Technicians and Technologists involved with building construction

## Course Outline

### On-site Quality Management System & Inspection

- Total Quality Management System
- What is Inspection?
- Why is Inspection needed?
- What components require Special Inspection?
- What are the role and responsibilities of Special Inspectors?

### General Inspection Guidelines

- Field Inspectors
- Steel Reinforced Bars Inspection
- Concrete Construction Inspection
- Structural Masonry Inspection
- Shotcrete Inspection
- Concrete NDT

### Steel Structure Inspection Guidelines

- Structural Steel Inspection
- Anchor Bolts, Dowels, and Hold-down System Inspections
- Non-destructive Testing
- Level II and Level III NDE
- Welding Inspector
- Fireproofing Inspection
- Test Method for determining Concrete Floor Flatness and Levelness (F-Numbers)
- Classification of Soils for Engineering Purposes

### Part I - Soil Inspection Guidelines

- Field Inspectors
- Soil Inspection On-site
- Earthwork Inspection
- Asphaltic Concrete Inspection
- Road Construction Inspection

### Part II - Architectural Inspection Guidelines

- What makes up the building envelope?
- Roofing and Architectural Sheet Metal
- Insulation Types and Inspection
- Wood Work Inspection

## Architectural Work Inspection Guidelines

- Plastering and Painting Types and Inspection
- Tiles Materials Inspection
- Exterior Cladding Systems
- Deck and Below-grade Waterproofing
- Doors, Windows, and other Wall Penetrations
- Compatibility of Building Envelope Components for Blast Resistance

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