Construction Administration for Engineers

INTRODUCTION

- Engineers working on medium to large construction projects continue to face mounting challenges in the delivery of their projects. The rapid impact of globalization has placed even stricter demands on project delivery time, cost and quality.
- Knowledgeable project executives recognize that a major ingredient for project success is the active administration of construction processes. It is therefore essential to have a working understanding of project planning, estimating, scheduling, and execution control procedures.
- Construction projects often encounter costly claims which delay projects and cause owners and contractors to incur damages. Understanding Construction Administration and claims avoidance goes a long way towards achieving sound project objectives.

By attending this training course, participants will develop the following competencies:

- Learn how to measure construction project progress
- Discover the importance of accurate record keeping
- How to effectively administer construction projects at site
- Learn methods to improve control of construction projects from pre-construction through project close-out
- Learn how to keep construction projects on schedule and within budget
- Avoid claims through effective communication
- Find out how information technology can be used to achieve project success

PROGRAMME OBJECTIVES

- Ensure construction conforms to construction documents
- Reduce or eliminate potential for construction claims
- Lessen construction project risks
- Identify and resolve construction problems early
- Supplement the client's construction knowledge

WHO SHOULD ATTEND?

- Construction Project Engineers
- New Construction Project Professionals
- Site Engineers
- Cost Engineers
- Resident Engineers
- Contract Administrators
- Architects
- Personnel who want to learn structured approach to managing construction projects

TRAINING METHODOLOGY

- This Construction Administration training course will combine presentations with interactive practical exercises, supported by video materials, activities and case studies. Delegates will be encouraged to participate actively in relating the principles of stress management to the particular needs of their workplace.

PROGRAMME SUMMARY

- This training course gives practical guidance on construction project administration, field management, and claims avoidance. Attendees will use contract provisions to follow the construction process from the pre-construction phase through project close-out to minimize and resolve claims and disputes. Information technology tools that can be used to assure a smooth flowing project will be presented.

PROGRAM OUTLINE

INTRODUCTION TO CONSTRUCTION ADMINISTRATION

- What is a Project?
- What is Project Management?
- Project Stakeholders
- Leadership, Responsibility and Authority
- Management Styles
- Construction Contracts
- Construction Safety
- Project Delivery Systems

PROJECT PLANNING, ESTIMATING AND SCHEDULING

- Estimating Duration Assessment
- Planning and Scheduling Methods
- Critical Path Scheduling
- Resource Allocation Methods
- Time-Cost Trade-off

PROACTIVE PROJECT CONTROL

- Development of Project Baselines
- Earned Value Control Process
- Project Variance Analysis and Quantification
- Schedule Performance Index (SPI) and Cost Performance Index (CPI)
- Schedule and Cost Recovery Analysis
- Productivity Measurement

PROJECT ACCELERATION AND CONSTRUCTION CLAIMS AVOIDANCE

- Circumstances Requiring Project Acceleration
- Options for Accelerating the Schedule
- Crashing the Schedule – How?
- Construction Claims Avoidance
- Changes and Extra Work
- Claims and Disputes: Alternate Dispute Resolution
- Team Development and Motivation
- Management styles and Conflict Handling
- Project Negotiation Tactics

ADVANCED PROJECT MANAGEMENT TOOLS

- Project Software
- Building Information Modeling
- Lean Project Management