

# Project Commissioning A Practical Approach

## INTRODUCTION

- The Commissioning Process begins at project Pre-Design Phase and continues for the life of the facility (through the Occupancy and Operations Phase). Project commissioning is a quality-oriented process for achieving, verifying, and documenting that the performance of facilities, systems, and assemblies meets defined objectives and criteria. and the commissioning team will perform the needed processes and acceptance tests to achieve these requirements.
- Knowing the scope of work, and the time and resources needed are not enough to reach the goals, we will work together during this course to transfer his headline into knowledge, details, schedule, and defined roles, responsibilities and boundaries. The professional commissioning of a new project is the proper starting for a smooth operation, less maintenance tasks and modifications, and a longer life cycle project.
- This training course on Project Commissioning will define how the Commissioning processes is selected to match the project size, complexity, and system components to ensure that design requirements are met. Commissioning processes and acceptance tests documentations are essential in properly and smoothly managing the project through its life cycle.

This training course on Project Commissioning will highlight:

- Stakeholders roles and responsibilities
- Tasks to be performed
- Commissioning integrity
- Administration close-outs
- Technical close-outs including warranties

## OBJECTIVES

By the end of this training course, participants will learn to:

- Determine the needed documents before commissioning initiation
- Develop the plan and schedule to perform the commissioning tasks
- Apply the schedule
- Analyze the results and modify the schedule if needed
- Determine and deliver the close-out documents

## **TRAINING METHODOLOGY**

- Participants to this training course will receive a thorough training on the subjects covered by the course outline with the instructor utilising a variety of proven adult learning teaching and facilitation techniques. Training course methodology includes presentation, commissioning scenarios, commissioning close-out forms.

## **ORGANISATIONAL IMPACT**

This training course will help the stakeholders to have a clear plan and schedule for the commissioning activities:

- Minimize the Re-do tasks
- Improve the performance
- Improve the communication between stakeholders
- Minimize the maintenance efforts
- A good starting for the project historical information
- Built a documentation system

## **PERSONAL IMPACT**

- Needed knowledge before starting any commissioning activities
- Control your share and monitor the whole performance
- Clear boundaries between the stakeholders
- Better time management
- Better communication between you and the stakeholders
- Define the potential problems and find the solution before they show-up

## **WHO SHOULD ATTEND?**

This training course on Project Commissioning is a starting phase to deliver a successful project with minimum future problems, suitable to a wide range of professionals but will greatly benefit:

- Construction Engineers
- Construction Technicians
- Quality Control / Assurance Engineers
- Design Engineers
- Technical Office Engineers
- Project Management Professionals

## Course Outline

### Construction Phase

- Construction Phase Commissioning Objectives
- Commissioning Team
- Commissioning Agent Tasks
- Roles and Responsibilities
- Construction Phase Commissioning Kickoff Meeting
- Construction Phase Commissioning Plan
- Construction Schedule Facilitation and Integration
- Construction Phase Meetings

### Construction Phase Continued

- Commissioning Construction Observation Visits
- RFI's, Change Directives, Change Orders
- Submittal Review
- Construction Phase Controls Conference
- Pre-Functional Checklists
- Preliminary Systems Functional Performance Test Procedures
- Adapting the Construction Phase Commissioning Process

### Acceptance and Testing Phase Commissioning

- Acceptance and Testing Phase Commissioning Team
- Acceptance and Testing Phase Commissioning Tasks
- Acceptance and Testing Phase Commissioning Team Roles and Responsibilities
- Construction Meetings
- Commissioning Construction Site Visits
- Equipment / System Start Up Observation and Review
- Pre-Functional Checklist Verification
- Systems Functional Testing

### Acceptance and Testing Phase Commissioning Continued

- Operations and Maintenance Manuals
- Systems Manual
- Training Verification
- Commissioning Issues Follow Up and Resolution
- Final Commissioning Report
- Lessons Learned Review Meeting
- Adapting the Acceptance Phase Commissioning Process

## Warranty

- Warranty Phase Commissioning Team
- Warranty Phase Commissioning Tasks
- Warranty Phase Commissioning Roles and Responsibilities
- Systems Performance Monitoring
- Deferred Seasonal Testing
- Post-Occupancy Warranty Checkup
- Final Commissioning Report Addendum
- Adapting the Warranty Phase Commissioning Process