

# PROJECT RISK MANAGEMENT

## INTRODUCTION

Risk is inherent in every project. Project risk is an uncertain event or condition that if it occurs, has a positive or a negative effect on project objectives. Risk Management is an organized systematic process of identifying, analyzing, and responding to project risks. Today's project manager must have the analytical ability to closely examine and assess the risk of each project, and take the necessary steps to mitigate the risk without compromising the integrity of the project.

Project Risk Management provides you with a structured approach for assessing and managing a wide variety of project risks. This five-day interactive workshop offers a proven methodology for systematically identifying, analyzing, and mitigating project risks, throughout project life cycle.

## BENEFITS

- Develop a Risk Management Plan for a Project
- Identify project risks, which might affect the project
- Measure the probability and consequences of risks and estimating their impact on project objectives using "Quantitative Risk Analysis" (QRA)
- Develop procedures and techniques for risk response planning
- Monitor residual risk and control new risks throughout the project life cycle

## PRESENTER

### Dr. Jamal F. AlBahar, PMP, AVS

Registered Arbitrator Dubai, U.A.E. and Kuwait

Active Member: PMI, CMAA, AACE, AAA, PMA, SAVE, CSI,

President, PROMIS- Project Management Engineering Systems

Dr. Al Bahar, is a regional expert in project management applications and a well recognized consultant in construction contracts and claims analysis. Dr. AlBahar is a frequent regional and international speaker on subjects related to project management, construction contracts, tendering procedures, claims analysis/evaluation, arbitration, and value engineering. Dr. AlBahar has conducted over 500 public and in-house training courses in the last 20 years on subjects related to contracts, claims analysis and pricing, project management, value engineering, budgeting and cost estimating, and effective project administrative procedures. Dr. AlBahar is a registered arbitrator in Kuwait, Bahrain and the U.A.E.

## PROGRAM

### DAY ONE

#### INTRODUCTION AND OVERVIEW OF RISK MANAGEMENT

- Definition of Risk
- Risk Assessment, management and analysis
- Decision-making under certainty
- Risk and Uncertainty, Risk and Opportunity
- Costs and benefits of risk management
- Sources of project risks

#### RISK TYPES

- Scope, Cost, Schedule, Budget
- Technical performance (Quality)

#### RISK CLASSIFICATION/CATEGORIZATION

- Internal versus External risks
- Technical risks
- Legal / Contracts – related risks
- Engineering / Design – related risks

### DAY TWO

#### RISK MANAGEMENT PLANNING

- Project Charter
- Organization's risk management policies
- Defined roles and responsibilities
- Template for the organization's risk management plan

#### OUTPUTS - RISK MANAGEMENT PLAN

##### RISK IDENTIFICATION

- Risk Management Plan
- Project Planning Outputs
- Risk Categories, Historical Information
- Checklists, Risk Register

#### OUTPUTS – PROJECT RISKS AND RISK REGISTER

### DAY THREE

#### QUANTITATIVE RISK ANALYSIS

- Risk Management Plan
- Identified Risk, Project Status
- Scales of probability and impact, Assumptions
- Probability / Impact risk rating matrix

#### OUTPUTS

- Overall risk ranking for the project
- List of prioritized risks
- List of risks for additional analysis and management

#### QUANTITATIVE RISK ANALYSIS

- Interviewing, Decision Tree Analysis
- Sensitivity Analysis
- @ Risk Software Monte Carlo Simulation Techniques
- Risk + Software Demonstration
- Summary of Modeling and Simulation

#### OUTPUTS

- Prioritized list of quantified risks
- Probabilistic analysis of the project
- Probability of achieving the cost and time objectives

### DAY FOUR

#### RISK RESPONSE PLANNING

- List of potential responses
- Risk thresholds, Risk Owners, Common risk causes

#### TOOLS AND TECHNIQUES

- Avoidance, Transference, Mitigation, Acceptance, Insurance

#### OUTPUTS

- Risk response plan, Residual risks, Secondary risks
- Contractual agreements
- Contingency reserve amounts needed

### DAY FIVE

#### RISK MONITORING AND CONTROL

- Additional Risk Identification and analysis
- Scope Changes

#### TOOLS AND TECHNIQUES

- Project Risk response audits
- Periodic project reviews, Earned value analysis
- Technical Performance measurement
- Additional Risk, Response planning

#### OUTPUTS

- Workaround Plans
- Updates to the risk response plan
- Updates to risk identification checklists
- Update Risk Register, Lessons Learned