



EPC and EPCIC Contract Management: Lump-Sum Turnkey Contracts for Energy and Offshore Projects



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Technical depth: Practitioner · **Practical mode:** Case study

Introduction

Lump-sum turnkey EPC and EPCIC contracts place design, procurement, construction, installation and commissioning risk on one contractor, yet overruns on energy, process and offshore projects remain common. The causes are usually contractual: unclear owner's requirements, uncapped liabilities, unmanaged interfaces and completion tests that nobody planned for. This Core Concept course equips owner and contractor managers to manage these contracts from award to final acceptance, using the model forms the industry relies on. Participants work on case material from several sectors and leave with an EPC Contract Risk and Interface Management Plan for a real project.

Course Objectives

- Compare EPC, EPCIC and alternative delivery models and select a contracting strategy that fits the project's risk profile
- Interpret the risk, liability and indemnity provisions of the principal international EPC model forms
- Manage owner's requirements, design review, procurement and subcontract flow-down within the contract terms
- Control interfaces, changes and schedule performance across engineering, fabrication, installation and commissioning
- Administer completion, performance tests, guarantees, liquidated damages and handover obligations
- Produce an EPC Contract Risk and Interface Management Plan for a live or planned project

Target Audience

- Contract and commercial managers on owner and contractor EPC teams
- Project and package managers responsible for EPC or EPCIC scope delivery
- Engineering and interface managers coordinating design, fabrication and installation
- Procurement and subcontract managers who flow down EPC obligations to vendors
- Commissioning and completion managers responsible for tests on completion and handover
- In-house legal and risk managers who negotiate EPC terms and securities

Course Outline

Day 1: EPC and EPCIC Fundamentals

- Project Delivery Models: EPC, EPCM, EPCIC and Design-Build Compared
- Lump-Sum Turnkey Risk Profile and Contracting Strategy Selection
- EPCIC Scope Breakdown: Engineering, Fabrication, Transport, Installation and Commissioning
- Front-End Definition Quality and AACE 18R-97 Estimate Classes
- Contract Readiness Review of Owner's Requirements

Day 2: Model Forms and Risk Allocation

- FIDIC Silver Book 2017 Structure and Owner-Contractor Risk Balance
- ENAA Model Form for Process Plant Construction Key Provisions
- LOGIC Marine Construction Conditions and Knock-for-Knock Indemnities
- Limitation of Liability, Consequential Loss Exclusions and Liability Caps
- Contract Securities: Parent Company Guarantees and URDG 758 Bonds

Day 3: Managing Execution

- Owner's Requirements, Design Review and Fitness-for-Purpose Obligations
- Vendor and Subcontract Flow-Down Matrix
- Interface Management Plan and Interface Agreement Register
- Change Order Procedure and Change Log Control
- Progress Measurement, Milestone Payments and Earned Progress Reporting

Day 4: Risk, Completion and Problem Cases

- Mechanical Completion, Ready for Start-Up and Provisional Acceptance Milestones
- Performance Guarantees, Performance Tests and Performance Liquidated Damages
- Delay Liquidated Damages, Extension of Time and Claims on EPC Projects
- Construction All Risks, Marine Warranty and Insurance Programme Review
- Contract Risk Register Aligned to ISO 31000 for EPC Portfolios

Day 5: Case Work and the EPC Contract Risk and Interface Management Plan

- Offshore Platform EPCIC Case Study: Installation Delay and Weather Risk
 - Petrochemical Plant EPC Case Study: Failed Performance Test and Guarantees
 - Liability and Indemnity Map Build for an Own Project
 - EPC Contract Risk and Interface Management Plan Drafting
 - Commercial Review Panel and Plan Defence
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Skills You Will Gain

- EPC Contracting Strategy
- Liability and Indemnity Analysis
- Interface Management
- Subcontract Flow-Down
- EPC Change Control
- Performance Guarantee Management
- Completion and Handover Management
- Contract Security Management

Why Attend This Course

- Take back an EPC Contract Risk and Interface Management Plan for a real or planned project
- Spot uncapped liabilities, weak indemnities and unclear owner's requirements before they become losses
- Plan completion, performance testing and handover so that liquidated damages are avoided rather than argued
- Compare EPC practice with owners and contractors from energy, power, petrochemical and infrastructure projects

Conclusion

EPC and EPCIC contracts transfer risk on paper, but outcomes depend on how that risk is managed during execution. This course moves from delivery models and contracting strategy, through the principal international model forms and their liability regimes, to managing design, interfaces, changes, completion and guarantees. The final day applies that material to case projects and to the participant's own contract, producing an EPC Contract Risk and Interface Management Plan that can be used from the next project review onwards.
