EPC Contract Management for Major Engineering Projects Training Course

Ref: #CM5423

Course Introduction / Overview:

This comprehensive training course provides an in-depth exploration of Engineering, Procurement, and Construction (EPC) contracts, which are the cornerstone of major international projects in sectors like energy, infrastructure, and industrial development. Managing these complex, high-value agreements requires a specialized skill set that blends legal acumen, project management expertise, and commercial awareness. This program is designed to equip participants with the critical knowledge to navigate the entire EPC contract lifecycle, from tendering and negotiation to execution and close-out. As highlighted by experts like Dr. Nael G. Bunni in works such as "The FIDIC Forms of Contract," a thorough understanding of contract mechanisms is paramount to project success. BIG BEN Training Center has developed this course to demystify the intricacies of lump-sum turnkey projects, risk allocation, change management, and dispute resolution. Participants will gain practical insights into managing liabilities, performance guarantees, and claims, ensuring they can protect their organization's interests while delivering projects on time, within budget, and to the specified quality standards. This training moves beyond theory, focusing on real-world challenges and strategic solutions for effective EPC contract administration.

Target Audience / This training course is suitable for:

- Project Directors and Managers.
- Contract Managers and Administrators.
- Commercial Managers.
- Procurement and Purchasing Managers.
- Project Engineers and Lead Engineers.
- Legal Counsel and Corporate Lawyers.
- Finance Managers involved in capital projects.
- Quantity Surveyors and Cost Engineers.
- Government officials involved in public infrastructure projects.
- Consultants and advisors in the construction and energy sectors.

Target Sectors and Industries:

- Oil and Gas.
- Petrochemical and Process Plants.
- Power Generation and Transmission.
- Renewable Energy (Solar, Wind, Hydro).
- Heavy Civil Infrastructure and Transportation.
- Mining and Metals.
- Large-Scale Commercial and Residential Construction.
- Water and Wastewater Treatment Facilities.
- Governmental bodies and public works agencies.
- International development and financing institutions.

Target Organizations Departments:

- Project Management Office (PMO).
- Legal and Contracts Department.
- Procurement and Supply Chain Management.
- Engineering and Design.
- Finance and Accounting.
- Construction Management.
- Risk Management and Compliance.
- Business Development.
- Operations and Maintenance.

Course Offerings:

By the end of this course, the participants will have able to:

- Analyze the complete lifecycle and structure of EPC contracts.
- Identify and mitigate risks associated with lump-sum turnkey projects.
- Master the key clauses related to scope, payment, liability, and indemnity.
- Develop effective strategies for contract negotiation and tendering.
- Manage change orders and variations systematically to prevent scope creep.
- Administer performance guarantees, bonds, and insurance policies effectively.

- Implement robust procedures for claims management and dispute avoidance.
- Navigate the complexities of contract close-out, testing, and final acceptance.
- Understand the interface between technical, commercial, and legal project aspects.
- Apply best practices for managing contractor and subcontractor relationships.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be highly interactive, practical, and engaging, ensuring participants can immediately apply their learning to real-world scenarios. This course moves beyond traditional lectures by incorporating a blended learning approach that emphasizes active participation. A significant portion of the training is dedicated to analyzing case studies drawn from major international engineering projects, allowing participants to dissect complex problems and successful strategies. Interactive group discussions, workshops, and role-playing exercises will be used to simulate contract negotiations, change order management, and dispute resolution meetings. This hands-on approach fosters collaborative problem-solving and a deeper understanding of the subject matter. Our expert instructors facilitate a dynamic learning environment where participants are encouraged to share their own experiences and challenges. Continuous feedback is provided throughout the sessions to reinforce key concepts and ensure a solid grasp of EPC contract management principles. The program is structured to build confidence and competence in handling the multifaceted demands of large-scale projects.

Course Agenda (Course Units):

Unit One: Fundamentals of EPC Contracts and Project Structures

- Introduction to EPC (Engineering, Procurement, Construction) Projects.
- The EPC Project Lifecycle from Concept to Commissioning.
- Key Parties and Stakeholders in an EPC Contract.
- Comparison of EPC with other Project Delivery Models (EPCM, DBB).
- Understanding Lump-Sum Turnkey (LSTK) Principles.
- The Role of International Standards and Forms of Contract (e.g., FIDIC).
- Initial Project Scoping and Front-End Engineering Design (FEED).

Unit Two: EPC Contract Formation and Key Clauses

- The Tendering and Bidding Process for EPC Contracts.
- Essential Elements of a Bankable EPC Contract.
- Drafting and Negotiating Scope of Work and Technical Specifications.

- Analyzing Price, Payment Terms, and Milestones.
- Understanding Time for Completion, Delays, and Extension of Time (EOT).
- Clauses on Performance Guarantees, Bonds, and Warranties.
- Force Majeure and its Implications in Major Projects.

Unit Three: Managing Risk, Change, and Performance

- Comprehensive Risk Identification and Allocation in EPC Contracts.
- Strategies for Managing Contractor and Owner Risks.
- The Change Order and Variation Management Process.
- Controlling Scope Creep and its Impact on Cost and Schedule.
- Quality Assurance, Quality Control, and Inspection Protocols.
- Health, Safety, and Environmental (HSE) Management Obligations.
- Monitoring Project Progress and Performance Reporting.

Unit Four: Contract Administration and Financial Management

- Day-to-Day EPC Contract Administration Best Practices.
- Managing Correspondence, Notices, and Documentation.
- Insurance Requirements and Liability Provisions.
- Understanding Indemnification and Limitation of Liability Clauses.
- Intellectual Property Rights in Engineering Designs.
- Provisional and Final Acceptance Procedures.
- Managing Payments, Invoicing, and Financial Close-Out.

Unit Five: Claims, Disputes, and Contract Close-Out

- Early Identification and Prevention of Claims.
- The Process for Submitting and Evaluating Claims.
- Negotiation and Amicable Settlement of Disputes.
- Alternative Dispute Resolution (ADR) Mechanisms: Mediation and Adjudication.
- Understanding Arbitration and Litigation in EPC Contracts.
- Contract Termination: Rights, Procedures, and Consequences.
- Final Account Settlement, Handover, and Defects Liability Period.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

In an era of increasing global supply chain volatility, how can EPC contracts be structured to create a more equitable balance of risk between owners and contractors?

What unique qualities does this course offer compared to other courses?

This training course distinguishes itself by offering a holistic, 360-degree perspective on EPC contract management that seamlessly integrates the legal, commercial, and project management dimensions. Unlike programs that focus narrowly on a single aspect, this course provides a comprehensive framework for understanding the intricate interplay between contract clauses and on-the-ground project realities. Our curriculum is built upon an extensive analysis of real-world case studies from landmark international projects, moving beyond theoretical knowledge to impart practical, actionable wisdom. Participants will not just learn what the contract says; they will learn how to apply it strategically to mitigate risk, control costs, and resolve conflicts. The course emphasizes proactive and preventative strategies for claim and dispute management, a critical skill set often overlooked. Furthermore, the content is continuously updated to reflect the latest industry trends, geopolitical risks, and evolving legal precedents affecting major engineering projects globally. The interactive methodology ensures that participants leave with not only enhanced knowledge but also the confidence to navigate the high-stakes environment of EPC contracting with authority and foresight.