Crane and Lifting Operations Safety for Supervisors Training Course



21 - 25 Dec 2026

Kuala Lumpur

5200 € (Per Person)

Ref: #HSE1631_107097

Course Introduction / Overview:

The safe execution of crane and lifting operations is a cornerstone of industrial safety, where the role of the supervisor is paramount. This intensive training course is meticulously designed to equip supervisors, managers, and safety professionals with the advanced knowledge and leadership skills required to oversee complex lifting activities, ensuring compliance and preventing catastrophic failures. Moving beyond basic operator training, this program delves into the critical aspects of planning, risk assessment, and on-site management. As highlighted by authorities like Dennis J. O'Rourke in his seminal work "Rigging Engineering Basics," a profound understanding of engineering principles and regulatory frameworks is non-negotiable for those in charge. This course integrates key principles from standards such as ASME B30 and LOLER, translating complex regulations into practical, actionable supervisory strategies. At BIG BEN Training Center, we are committed to fostering a culture of proactive safety, empowering participants to not only enforce rules but also to lead their teams with confidence, competence, and an unwavering commitment to incident prevention. This program provides a comprehensive A to Z guide, from initial lift planning and personnel selection to emergency response and post-lift analysis, making it an essential investment for any organization dedicated to achieving zero-incident lifting operations.

Target Audience / This training course is suitable for:

- Crane and Lifting Operations Supervisors.
- Site Managers and Construction Foremen.
- HSE Managers, Officers, and Advisors.
- Appointed Persons and Lift Planners.
- Project Engineers and Managers.
- Rigging and Maintenance Supervisors.
- Senior Technicians involved in lifting operations.
- Anyone with responsibility for supervising lifting activities.

Target Sectors and Industries:

- Construction and Civil Engineering.
- Oil and Gas (Onshore and Offshore).
- Power Generation and Utilities.
- Manufacturing and Heavy Industry.
- Maritime, Ports, and Shipbuilding.
- Mining and Quarrying.
- Governmental bodies and public works agencies.
- Logistics and Heavy Haulage.

Target Organizations Departments:

- Health, Safety, and Environment (HSE).
- Operations and Site Management.
- Project Management and Engineering.
- Maintenance and Asset Integrity.
- Construction and Fabrication.
- Logistics and Supply Chain.
- Quality Assurance and Control.
- Facilities Management.

Course Offerings:

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

- Develop and implement comprehensive and compliant lift plans for routine and non-routine lifts.
- Conduct thorough risk assessments and hazard analyses specific to lifting operations.
- Interpret complex crane load charts, range diagrams, and specifications accurately.
- Understand and apply the legal and regulatory requirements of standards like OSHA, LOLER, and ASME B30.
- Effectively supervise and coordinate lifting teams, including riggers and signal persons.
- Manage the lift zone, ensuring proper communication, exclusion zones, and environmental controls.
- Lead effective pre-lift toolbox talks and post-lift debriefings to enhance team safety.
- Investigate lifting incidents and near-misses to identify root causes and implement corrective actions.
- Select the appropriate crane and rigging equipment for specific lifting tasks.
- Promote a proactive safety culture within their teams and organization.

Course Methodology:

The training methodology employed in this course is designed for maximum engagement and practical application, moving beyond traditional lecture-based formats. At BIG BEN Training Center, we believe in learning by doing and analyzing. The program is built around a core of interactive discussions, real-world case study analysis of major lifting incidents, and collaborative group workshops. Participants will work in teams to develop lift plans for complex scenarios, forcing them to apply theoretical knowledge to practical challenges. Video analysis of both correct and incorrect lifting procedures will be used to highlight critical details and common errors in a controlled environment. Facilitated sessions will encourage the sharing of experiences and best practices among participants from diverse industries, enriching the learning environment. The course emphasizes problem-solving and critical thinking, equipping supervisors with the decision-making skills needed to handle unexpected situations on site. Feedback is a continuous process, with instructors providing guidance and assessment throughout the interactive exercises to ensure concepts are not just understood, but mastered. This blended approach ensures that participants return to their workplace with tangible skills and the confidence to lead lifting operations safely and effectively.

Course Agenda (Course Units):

Unit One: Foundations of Lifting Supervision and Regulatory Compliance

- Introduction to the Supervisor's Role and Responsibilities.
- Overview of International and Regional Standards (OSHA, ASME B30, LOLER).
- Legal Liabilities and Due Diligence for Supervisors.
- Understanding Different Types of Cranes and Their Applications.
- Key Terminology in Crane and Lifting Operations.
- The Hierarchy of Control for Lifting Hazards.
- Fundamentals of a Proactive Safety Culture in Lifting.

Unit Two: Comprehensive Lift Planning and Risk Management

- The Critical Elements of a Formal Lift Plan.
- Conducting Site-Specific Hazard Identification and Risk Assessments.
- Calculating Load Weights and Determining the Center of Gravity.
- Understanding Ground Bearing Pressure and Crane Support.
- Personnel Roles, Competencies, and Responsibilities (Appointed Person, Rigger, Signal Person).
- Developing a Method Statement for Complex Lifts.
- Pre-Lift Meetings and Toolbox Talk Leadership.

Unit Three: Technical Aspects of Cranes and Rigging

- Interpreting Crane Load Charts and Manufacturer Specifications.
- Principles of Crane Stability, Leverage, and Structural Integrity.
- Selection and Application of Slings, Shackles, and Lifting Hardware.
- Rigging Principles, Sling Angles, and Load Distribution.
- Pre-Use and Periodic Inspection Requirements for Cranes and Rigging Gear.
- Understanding Wire Rope and Chain Inspection Criteria.
- Common Causes of Crane and Rigging Equipment Failure.

Unit Four: On-Site Supervision and Operational Control

- Effective Communication Protocols (Hand Signals and Radio).
- Establishing and Controlling the Lift Zone and Swing Radius.
- Monitoring Weather and Environmental Conditions.
- Supervising Personnel During Assembly and Disassembly of Cranes.
- Managing Tandem Lifts and Other Critical Lifting Operations.
- Recognizing and Responding to Unsafe Conditions.
- Dynamic Decision-Making During the Lifting Operation.

Unit Five: Emergency Response, Incident Investigation, and Continuous Improvement

- Developing and Implementing Emergency Response Plans for Lifting Operations.
- Procedures for Crane Failures, Load Drops, and Personnel Injury.
- Systematic Incident and Near-Miss Investigation Techniques.
- Root Cause Analysis for Lifting-Related Incidents.
- Effective Reporting and Documentation Practices.
- Conducting Post-Lift Reviews for Lessons Learned.
- Implementing Corrective Actions and Driving Continuous Safety Improvement.

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:

Beyond regulatory compliance, what is the supervisor's ethical responsibility in a 'grey area' lifting scenario where pressure from management conflicts with best safety practices?

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

This course distinguishes itself by focusing squarely on the supervisory and leadership aspects of lifting operations, rather than solely on the technical mechanics. While many courses teach how to operate equipment or rig a load, this program is architected for the individual who must manage the entire process and its inherent risks. Its primary uniqueness lies in its heavy reliance on case study analysis of real-world crane accidents, deconstructing them to understand the chain of events, human factors, and supervisory oversights that led to failure. This forensic approach provides profound, lasting lessons that a standard textbook approach cannot. Furthermore, the curriculum is designed to cultivate critical thinking and decisive leadership under pressure. It moves beyond a simple checklist mentality, pushing participants to develop a deep, intuitive understanding of risk and to foster a culture of psychological safety where any team member feels empowered to halt an unsafe operation. The emphasis is not just on what the regulations say, but on why they exist and how a supervisor can champion a safety ethos that transcends mere compliance, ultimately protecting lives, assets, and corporate reputation.