MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

QUALITY ASSURANCE & PRODUCT COMPLIANCE IN CEMENT PRODUCTION

"Ensuring Product Integrity, Performance, and Regulatory Compliance from Raw Material to Final Delivery"

Schedule

Date	Venue	Fees (Face-to-Face)
06 – 10 Sep 2026	Manama, Bahrain	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

The cement industry plays a vital role in infrastructure development, but ensuring consistent quality and regulatory compliance presents ongoing challenges. Variations in raw materials, process conditions, and operational control can impact product performance, customer satisfaction, and brand reputation. Quality assurance (QA) is essential to maintaining standards across production lines while meeting national and international compliance criteria.

This intensive 5-day course equips cement production professionals with the technical, operational, and regulatory knowledge needed to design and maintain effective QA programs. From raw material testing and kiln process control to laboratory evaluation and certification, participants will gain hands-on tools and strategies to ensure high-quality, compliant cement output.

Objectives

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

- Implement QA protocols throughout the cement production lifecycle
- Monitor raw material variability and its impact on clinker and cement quality
- Apply international standards (e.g., ASTM, EN, BS) in product compliance testing
- Design laboratory testing procedures and quality control checkpoints
- Integrate quality audits, documentation, and customer feedback into continuous improvement

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Why Attend

- Learn how to maintain consistent product quality in changing operational conditions
- Ensure compliance with global and national regulatory standards for cement products
- Reduce production costs through early defect detection and quality control
- Gain insight into lab testing, standard specifications, and QA best practices
- Improve product reliability, customer trust, and market competitiveness

Target Audience

This program is designed for:

- Quality assurance and quality control (QA/QC) professionals in cement plants
- Cement plant managers, engineers, and production supervisors
- Laboratory technicians and process analysts
- Regulatory affairs and compliance officers
- Technical support and product development specialists in cement and concrete industries

Individual Benefits

Key competencies that will be developed include:

- Quality control planning and process auditing
- Clinker and cement testing protocols and specifications
- Troubleshooting quality deviations in cement performance
- Interpretation of laboratory test results and compliance standards
- Implementation of ISO-based quality systems in cement production

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved product uniformity and reduced customer complaints
- Enhanced regulatory compliance and audit readiness
- Stronger quality control integration across departments
- Reduced waste and rework due to process-related defects
- A culture of quality awareness and continuous improvement within the plant

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – Cement chemistry, process variables, and QA frameworks
- Case Studies – Analysis of cement quality failures and corrective action plans
- Workshops – Lab test planning, QA checklists, and audit simulations
- Peer Exchange – Group problem-solving and experience sharing
- Tools – Sample QA manuals, testing templates, calibration logs, and compliance matrices

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Course Outline

DETAILED 5-DAY COURSE OUTLINE

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules | Coffee Breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Fundamentals of Cement Quality and Compliance

- Module 1: Cement Types and Performance Requirements (07:30 – 09:30) • Overview of cement chemistry and classifications • Key performance indicators: strength, fineness, setting time • Industry and customer expectations
- Module 2: Global Standards and Compliance (09:45 – 11:15) • ASTM, EN, BS, and other international standards • Regulatory trends and regional compliance requirements • Legal implications and documentation
- Module 3: QA/QC in Cement Manufacturing (11:30 – 01:00) • Principles of quality assurance in process industries • QA/QC roles and responsibilities in cement plants • Overview of ISO 9001 implementation
- Workshop – Quality Policy and Compliance Mapping (02:00 – 03:30) • Analyze your organization's QA framework • Map compliance requirements to operational controls

Day 2: Raw Materials and Process Control

- Module 1: Raw Material Quality and Variability (07:30 – 09:30) • Testing limestone, clay, gypsum, and additives • Managing variability and feedstock control • Chemical composition and impact on clinker
- Module 2: Clinker Production and Kiln Control (09:45 – 11:15) • Kiln performance and temperature control • Impact of kiln instability on cement quality • Monitoring and corrective actions
- Module 3: Process Data and Quality Monitoring (11:30 – 01:00) • Use of SCADA and PLC data for quality tracking • Process indicators and statistical control • Integrating production data into QA analysis
- Workshop – Root Cause Analysis of Quality Issues (02:00 – 03:30) • Troubleshooting clinker inconsistencies • Group case discussion

Day 3: Laboratory Testing and Specification Compliance

- Module 1: Cement Laboratory Operations (07:30 – 09:30) • Sample collection, preparation, and curing methods • Testing fineness, soundness, compressive strength • Equipment calibration and technician training
- Module 2: Performance-Based Testing and Certification (09:45 – 11:15) • Long-term strength, shrinkage, and setting tests • Product certification and external lab validation • Interpreting test reports and customer QA documents
- Module 3: Quality Records and Data Management (11:30 – 01:00) • Lab recordkeeping and traceability • QA documentation formats and control logs • Managing test data in digital platforms
- Workshop – Mock Cement Testing Plan (02:00 – 03:30) • Design a complete lab testing cycle for a cement batch • Evaluate compliance and QA documentation

Day 4: Continuous Improvement and Customer Assurance

- Module 1: Internal Auditing and Nonconformance Handling (07:30 – 09:30) • Conducting QA internal audits and walkthroughs • Nonconformance reports and corrective/preventive actions • Escalation and communication
- Module 2: Customer Complaint Investigation (09:45 – 11:15) • Analyzing field failures and performance feedback • Coordinating between QA, technical sales, and production • Closing the loop with CAPA and documentation
- Module 3: KPI Tracking and Quality Reporting (11:30 – 01:00) • Quality dashboards and trends • Monthly quality review formats • Linking QA performance to business outcomes
- Workshop – RCA of a Customer Complaint (02:00 – 03:30) • Group review of a quality issue from customer perspective • Develop a resolution strategy and improvement action

Day 5: Strategic QA Leadership and Future Trends

- Module 1: Building a Quality Culture (07:30 – 09:30) • Roles of leadership, training, and empowerment • Motivating teams to value product integrity • Recognition programs and performance tracking
- Module 2: Digital QA and Industry 4.0 Trends (09:45 – 11:15) • Automation in quality monitoring • AI and predictive quality systems • Remote audits and blockchain in compliance
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Module 3: Final Review and QA Action Plan (11:30 – 01:00) • Consolidating key concepts • Personal improvement planning • Knowledge check and Q&A

- Module 4: Certification and Closing (02:00 – 03:30) • Group feedback • Presentation of certificates • Course wrap-up

Certification

Participants will receive a Certificate of Completion in Quality Assurance & Product Compliance in Cement Production, validating their ability to manage cement quality systems, ensure standard compliance, and lead continuous improvement in cement manufacturing.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

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