MAWA EVENTS

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

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

COATING FAILURES AND REPAIR TECHNIQUES

"Diagnosing Surface Degradation and Applying Effective Industrial Coating Solutions"

Schedule

Date	Venue	Fees (Face-to-Face)
20 - 24 Apr 2026	Istanbul, Turkey	USD 3495 per delegate

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

Introduction

Protective coatings are critical to preventing corrosion, ensuring structural integrity, and extending the lifespan of industrial assets. However, improper application, surface contamination, or environmental exposure can lead to premature coating failures—costing industries millions in repairs, downtime, and safety risks.

This in-depth course equips engineers, inspectors, and maintenance professionals with the knowledge and techniques to identify coating failures, investigate root causes, and execute proper repair methods. Participants will explore surface preparation, material selection, defect analysis, and industry repair standards across multiple sectors.

Objectives

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

- Recognize the types, symptoms, and causes of coating failures
- Conduct visual and instrument-based inspections of degraded surfaces
- Identify failures such as blistering, delamination, cracking, and rust creep
- Select appropriate repair methods and re-coating strategies
- Apply international standards (e.g., SSPC, NACE, ISO) in inspection and repair
- Enhance durability and performance through preventive coating practices

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Why Attend

- Diagnose and resolve coating problems before they compromise safety or operations
- Develop skills in inspection techniques and failure classification
- Apply repair procedures using industry standards and best practices
- Improve coordination with contractors, inspectors, and QA/QC teams
- Reduce recurring maintenance costs through better coating management

Target Audience

This program is designed for:

- Maintenance and reliability engineers
- Corrosion and coating inspectors
- Asset integrity and facility managers
- QA/QC personnel in construction or oil & gas
- Anyone involved in protective coating applications and failure analysis

Individual Benefits

Key competencies that will be developed include:

- Failure mode identification and inspection readiness
- Knowledge of industry standards for surface preparation and coating repair
- Analytical skills in root cause investigation
- Hands-on repair planning and specification writing
- Proficiency in managing contractors and quality assurance

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved detection and prevention of coating failures
- More cost-effective maintenance scheduling and repair execution
- Better compliance with industry codes and safety regulations
- Reduced rework and asset downtime
- Strengthened lifecycle performance of coated structures and equipment

Instructional Methodology

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

- Strategy Briefings – Coating types, failure mechanisms, and repair options
- Case Studies – Industrial failure scenarios across oil & gas, marine, and infrastructure
- Workshops – Visual inspection, specification review, and repair planning
- Peer Exchange – Shared challenges in coating management and QA/QC
- Tools – ISO/SSPC/NACE references, inspection kits, damage assessment forms

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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: Coating Systems and Failure Fundamentals

- Module 1: Introduction to Protective Coatings (07:30 – 09:30) • Purpose, coating types, film build, performance expectations
- Module 2: Coating Failure Mechanisms (09:45 – 11:15) • Adhesion loss, underfilm corrosion, chalking, cracking
- Module 3: Factors Contributing to Failure (11:30 – 01:00) • Surface contamination, environmental conditions, application errors
- Module 4: Workshop – Coating Failure Case Review (02:00 – 03:30) • Analyze real failure photos and identify root causes

Day 2: Inspection, Testing, and Documentation

- Module 5: Visual and Instrument-Based Inspection (07:30 – 09:30) • Dry film thickness, holiday detection, adhesion tests
- Module 6: Inspection Standards and Procedures (09:45 – 11:15) • ISO 8501, SSPC-VIS 1-3, NACE SP0188
- Module 7: Surface Preparation Assessment (11:30 – 01:00) • Cleanliness grades, profile measurement, preparation methods
- Module 8: Workshop – Conduct a Coating Inspection (02:00 – 03:30) • Evaluate a coated panel and prepare inspection reports

Day 3: Repair Methods and Field Application

- Module 9: Localized vs Full Surface Repairs (07:30 – 09:30) • Patch repair, recoating, full removal and replacement
- Module 10: Selection of Repair Coating Systems (09:45 – 11:15) • Epoxy, polyurethane, zinc-rich, marine coatings
- Module 11: Application Tools and Field Practices (11:30 – 01:00) • Brush, roller, airless spray, curing requirements
- Module 12: Workshop – Specify a Repair Method (02:00 – 03:30) • Write a procedure for repair of blistering and rust creep

Day 4: Prevention, Specification, and Contractor Management

- Module 13: Preventive Measures and Maintenance Coating (07:30 – 09:30) • Coating selection, inspection intervals, coating audits
- Module 14: Writing Coating Specifications (09:45 – 11:15) • Surface prep, materials, environmental conditions
- Module 15: Managing Contractors and QA/QC (11:30 – 01:00) • Inspection checklists, approval stages, test reports
- Module 16: Workshop – Review a Coating Specification (02:00 – 03:30) • Evaluate an existing spec for completeness and accuracy

Day 5: Advanced Topics and Final Application Planning

- Module 17: Advanced Failures and Mitigation (07:30 – 09:30) • Microbial corrosion, cathodic disbondment, UV degradation
- Module 18: Sustainability and Environmental Compliance (09:45 – 11:15) • VOC regulations, waste control, safe disposal practices
- Module 19: Case Study – Major Repair Execution Plan (11:30 – 01:00) • Step-by-step review of a refinery coating repair
- Module 20: Final Workshop – Develop a Coating Repair Plan (02:00 – 03:30) • Participants present a comprehensive repair and prevention plan

Certification

Participants will receive a Certificate of Completion in Coating Failures and Repair Techniques, validating their ability to inspect, diagnose, and manage coating failure scenarios using international best practices and industry standards.

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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