

ADVANCED ACCIDENT INVESTIGATIONS AND ROOT CAUSE ANALYSIS (RCA)

“Mastering the Skills to Investigate Incidents, Uncover Root Causes, and Prevent Future Failures”

Schedule

Date	Venue	Fees (Face-to-Face)
04 – 08 May 2026	London, UK	USD 3495 per delegate

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

Introduction

Accident investigation is a critical function in maintaining workplace safety, compliance, and operational integrity. Beyond identifying immediate causes, effective investigations must reveal systemic issues, procedural failures, and organizational weaknesses.

This intensive 5-day course provides a comprehensive methodology for conducting high-quality investigations and applying Root Cause Analysis (RCA) techniques to eliminate future incidents. Participants will learn to collect and analyze evidence, interview witnesses, use advanced RCA tools, and produce actionable reports that support sustainable corrective action.

Objectives

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

- Conduct thorough, structured accident investigations
- Apply multiple Root Cause Analysis (RCA) techniques effectively
- Develop causal factor charts, timelines, and event trees
- Identify organizational, technical, and behavioral root causes
- Deliver concise, evidence-based investigation reports and recommendations

Why Attend

- Gain practical skills to lead and manage serious accident investigations
- Move beyond blaming individuals to uncover deeper system failures
- Apply industry-proven tools such as 5 Whys, Fishbone Diagrams, and Barrier Analysis
- Improve safety culture and organizational learning through effective RCA
- Ensure regulatory compliance and strengthen risk mitigation processes

Target Audience

This program is designed for:

- Safety, HSE, and risk management professionals
- Incident investigators and audit personnel
- Operations, maintenance, and plant supervisors
- Quality assurance and compliance managers
- Anyone tasked with leading or supporting incident investigations

Individual Benefits

Key competencies that will be developed include:

- Accident scene preservation and evidence collection
- Effective interviewing and fact-finding techniques
- Systematic use of RCA tools and logic diagrams
- Writing investigation reports that drive change
- Developing actionable and sustainable corrective measures

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved accuracy and consistency in incident investigations
- Enhanced ability to identify and address systemic safety risks
- Reduction in repeat incidents through sustainable root cause elimination
- Stronger compliance with regulatory and internal safety requirements
- Improved safety culture and risk ownership at all levels

Instructional Methodology

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

- **Expert Briefings** - Investigation frameworks and case law
- **Interactive Case Studies** - Historical accident reconstructions
- **Simulation Exercises** - Role-plays of incident scenes and interviews
- **Root Cause Workshops** - Use of analytical tools in group settings
- **Investigation Toolkits** - Templates, checklists, diagrams, and report formats

MAWA EVENTS

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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: Foundations of Accident Investigation

Module 1: Principles of Incident Investigation (07:30 - 09:30)

- Definitions: incident, accident, near-miss
- Legal, ethical, and business drivers for investigation
- Investigation policies and responsibilities

Module 2: Investigation Planning and Scene Control (09:45 - 11:15)

- Securing the scene and preserving evidence
- Investigation protocols and team roles
- Dealing with injured parties and first responders

Module 3: Evidence Collection and Documentation (11:30 - 01:00)

- Types of evidence: physical, testimonial, documentary
- Photography, sketches, and evidence logs
- Critical data capture techniques

Module 4: Workshop - Mock Accident Scene Exercise (02:00 - 03:30)

- Group simulation: document and report findings

Day 2: Fact Finding and Interview Techniques

Module 5: Interview Planning and Preparation (07:30 - 09:30)

- Who to interview and when
- Overcoming memory bias and fear
- Interview environment setup

Module 6: Interviewing Witnesses Effectively (09:45 - 11:15)

- Open vs closed questions
- Non-confrontational interviewing
- Recording and documenting interviews

Module 7: Fact Validation and Analysis (11:30 - 01:00)

- Triangulating evidence
- Fact vs assumption
- Identifying discrepancies and information gaps

Module 8: Workshop - Witness Interview Role-Play (02:00 - 03:30)

- Practice questioning and record keeping

Day 3: Root Cause Analysis Techniques

Module 9: Introduction to RCA Frameworks (07:30 - 09:30)

- The hierarchy of causes: direct, indirect, root
- Causal factor analysis vs failure mode analysis

Module 10: RCA Tools and Models (09:45 - 11:15)

- 5 Whys
- Fishbone (Ishikawa) diagram
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Change analysis and task analysis

Module 11: Event and Causal Factor Charting (11:30 - 01:00)

- Timelines, event trees, fault trees
- Barrier and control analysis
- Causal loop diagramming

Module 12: Workshop - Build a Root Cause Tree (02:00 - 03:30)

- Develop RCA output from previous day's interview exercise

Day 4: Report Writing and Recommendations**Module 13: Report Structures and Templates (07:30 - 09:30)**

- Standard formats and best practices
- Linking evidence to conclusions
- Using visuals and appendices effectively

Module 14: Writing Actionable Recommendations (09:45 - 11:15)

- SMART corrective actions
- Separating immediate, intermediate, and system-wide actions

Module 15: Presenting Findings to Management (11:30 - 01:00)

- Presenting data without blame
- Defensibility under legal/regulatory scrutiny
- Culture-sensitive communication

Module 16: Workshop - Draft a Full Incident Report (02:00 - 03:30)

- Group exercise using accumulated course data

Day 5: Complex Cases, Governance & Close-Out**Module 17: Investigating Major and Recurrent Incidents (07:30 - 09:30)**

- Handling fatalities and multiple-cause failures
- External investigations and media coordination

Module 18: Systemic Issues and Organizational Factors (09:45 - 11:15)

- Latent conditions and management system failures
- Link to risk assessment and compliance audits

Module 19: Close-Out, Lessons Learned, and Safety Culture (11:30 - 01:00)

- Feedback loops and follow-up
- Lessons learned dissemination
- Building a just and learning culture

Module 20: Final Simulation - Conduct an End-to-End Investigation (02:00 - 03:30)

- Scenario-based group project and course debrief

Certification

Participants will receive a **Certificate of Completion in Advanced Accident Investigations and Root Cause Analysis (RCA)**, demonstrating their ability to lead investigations, uncover true root causes, and develop effective solutions that enhance workplace safety and regulatory compliance.

Why Choose MAWA Events

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