

**Training Title**

**INCIDENT INVESTIGATION AND ROOT CAUSE ANALYSIS**

**Training Duration**

**5 days**

**Training Date**

HS017	Incident Investigation and Root Cause Analysis	5	12 - 16 February, 2024	\$6,500	Barcelona, Spain
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**In the below 5 star hotel as mentioned. The exact venue will be informed once finalized.**

**Training Fees**

**\$6,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch**

**Training Certificate**

**Define Management Consultancy & Training Certificate of course completion will be issued to all attendees.**

**Language: English**

**INTRODUCTION:**

This Root Cause Analysis training course will enable delegates to remain abreast of the latest researched trends, techniques and strategies to improve the condition and performance of their operational process. This hands-on intervention will equip you with the necessary basic knowledge and skills to optimize the function, daily running, and maintenance of the five main aspects of the process.

Delegates will be exposed to and learn the core competencies required for successful problem solving and solution implementation of an effective operations process against the background of the current global economic downturn. They will complete several in-course assignments, which will enhance their problem-solving skills and which will serve as an action plan for improvement. Setting the correct priorities and doing the right thing, makes all the difference to your performance.

in this course, you will apply a process for root cause analysis, establish a culture of continuous improvement, and create a proactive environment. Learn to ask the right questions, establish triggers that drive you to the RCA process, and perform cost-benefit analysis. When you learn to practice true root cause analysis you are able to eliminate the latent roots and stop recurring failures once and for all. After this three-day course, you will be able to develop and implement an RCA program, thus leading your organization to reduced downtime, increased production and a more proactive culture.

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## COURSE OBJECTIVE:

By the end of this training course, participants will:

- Gain a broad understanding and appreciation of the core functional aspects of how to perform an effective Root Cause and Failure Analysis
- Be able to review the six standard maintenance improvement tactics and their selection technique to ensure reliable process plant & equipment
- Learn how to develop a comprehensive operational process resource and support system analysis
- Understand the principles of an operational audit, develop your own process standard
- Gain insight and understanding into the unique leadership and motivation principles required for technical process operation and management

The objective of this course is to provide learners with knowledge and skill to manage incidents, with specific emphasis on the identification of the root causes and applying the RCAM (root cause analysis method), taking corrective action and implementing control measures to prevent the reoccurrence of incidents.

## WHO SHOULD ATTEND?

- All employee.
- Managers – Operations, Safety, and Executive
- Production Supervisors
- Training Managers
- Engineers – Process, Safety, and Mechanical
- Coordinators and Managers
- (Hazard review) Leaders and Incident Investigators

## COURSE SCHEDULE

### DAY 1

1. **Typical Problems With RCA**
  - Why most problem-solving models don't get to the root cause, and a solution
  - How analytical and creative thinking must be both separated and integrated
  - Difference between content and process thinking
2. **STEP 1 – Problem Definition**
  - How to ensure that the right problem is being worked on
  - Tools and filters for priority setting
  - Developing a clear and sufficient problem statement (includes practice)

### DAY 2

1. **STEP 2 – Understanding the Process**
  - How every problem is a process failure
  - How a SIPOC diagram can set boundaries and define interrelationships
  - Using flowcharts to drill down into the right part of the process (includes practice)

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**DAY 3**

**1. STEP 3 – Identifying Possible Causes**

- Five ways to identify possible causes
- Three options for selecting or eliminating causes

**Logic trees as a cause-and-effect diagram on steroids (includes practice)**

**DAY 4**

**1. STEP 4 – Data Collection**

- Population versus sampling; options for sampling
- Check sheets, graphs, and tables for discrete data collection
- Surveys, interviews, and field observation for opinions or less precise data

**2. STEP 5 – Data Analysis**

- Tools for discrete data analysis (run charts, histograms, pareto diagram, modified scatter diagram, pivot tables)
- Tools for softer type data (affinity diagram, relationship digraph)
- Integrative data analysis tools

**DAY 5**

**1. Case Study Practice – Practice on an integrative problem**

**2. The Rest of The Problem-Solving Process**

- Identifying and selecting solutions
- The importance of organizational change management issues
- Some models for understanding resistance and planning change
- Implementation, follow-up, and standardization

**COURSE METHODOLOGY**

The training course will be highly participatory and the course leader will present, guide and facilitate learning, using a range of methods including formal presentation, discussions, sector-specific case studies and exercises. Above all, the course leader will make extensive use of real-life case examples in which he has been personally involved. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Case studies & Practical Exercises
- 10% Role Play
- 10% Videos, Software or Simulators (as applicable) & General Discussions

**Case Studies, Group Discussions, Last Day Review, Assessments will be carried out.**

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