

ROOT CAUSE ANALYSIS

3 days course



INTRODUCTION

This is an industry-specific, three-days' workshop specifically designed for those who need to manage, undertake or understand how to conduct effective Root Cause Analysis (RCA) in response to identified problems and findings occurring during internal compliance monitoring and auditing activities. Effective incident investigations only happen when the root causes are identified and mitigated.

Delegates are required to participate to familiarize and provide practical experience in the use of a range of tools and techniques that may be utilized to undertake root cause analysis and the determination of appropriate corrective action(s) in response to audit non-conformance, management system defects or operational incidents.

Who Should Attend:

This course is highly recommended for anyone seeking to identify why incidents occur and to mitigate the causes. Quality, environmental and safety professionals; audit team leaders and members; engineers; manufacturing supervisors, managers, and executives frequently attend.

LEARNING OUTCOMES

After successful completion of this program, participants will be able to:

- ❖ Understand the difference between a Problem Fix and a Structural Solution.
- ❖ Be able to apply techniques that will help you to find the Root Cause and thus determine the Structural Solution.
- ❖ Be able to understand the correct steps of problem solving.
- ❖ Understand the importance of timely and accurate decision making.
- ❖ Improve organisational decision making and problem solving.

OUTLINE

Day 1

Symptoms, Causes and Problems

- What is a Symptom?
- What is a Cause and ways in understanding?
- What is a Problem and how to perform a failure analysis?

Six Step Problem Solving Process

- Obeyed steps
- Accepted techniques
- 6M +1
- Chloralkali production including electrolysis,
- HCL synthesis, chlorine management etc.

Root Cause Analysis

- Overview in oil and gas
- Root Cause Analysis Process
- Fishbone Diagram in oil and gas industry

- **Fault Tree Failure Analysis**
- **The Five Whys implementation in oil and gas industry**
- **Exercise**

Day 2

- **Chloralkali-specific hazards**
- **Handling chlorine gas**
- **Caustic spills,**
- **HCL production risks.**
- **Significant incident investigations within the chemical or petrochemical industries.**
- **Significant incident investigations within the chemical or petrochemical industries.**
- **Fault Tree Analysis (FTA)**
- **RPN**
- **FMEA**
-

Day 3

Creativity in the Problem-Solving Process

- **Problem Solving Creativity**
- **The Two Thinking Modes**
- **Cognitive Bias in oil and gas industry**

Decision Making

- **Key Influences on Decision Making**
- **Good Decision Making**
- **Requirements of Good Decision Making**

Mastering the Continuous Improvement Process

- **Mastering Your Own Continuous Development**

- Training Methodology

Training includes different exercises on common business specific problems with different levels of complexity which participants need to use new learning in solving and taking the right decisions.