



YELLOTEC

Failure Analysis

The Root Cause Failure Analysis course aims to improve the attendee's skills and to create a better understanding of failures, how to inspect and analyse them, as well as preventing their reoccurrence.

Theoretical learning and practical examples are provided to enable the attendee to conduct failure inspections and to analyse the data collected.

The course not only covers the methodology & fundamentals of failure analysis, but its application in the industry and on mobile equipment as well. The focus will be on mechanical systems.

Course Breakdown:

Maintenance Strategies

- Proactive Maintenance Strategies
- Risk and Reliability

Introduction to Maintenance Failures

- Conditions for Asset Integrity
- Definition of a Failure
- Failure Progression
- Types of Failures
- Symptoms versus Root Causes
- Practical Exercise: Examples of Equipment Failure Issues and Production Interruptions

RCFA Management

- PDCA
- RCFA Register
- Triggers
- Benefit versus Effort
- Levels of investigation
- Practical Exercise: Top 10 Downtime and Equipment Failure Issues

RCFA Process

- Step One: Define the Problem
- Step Two: Collect Data
- Step Three: Identify Possible Causal Factors
- Step Four: Identify the Root Cause(s)
- Step Five: Recommend and Implement Solutions
- RCFA Pitfalls

RCFA Methodologies

- 5 Why's
 - Description of the Method
 - Practical Exercise
- STEP (Sequential Time Event Plotting)
 - Description of the Method
 - Practical Exercise
- RCM Methodologies
 - Description of the Methods
 - Practical Exercise
- Cause and Effect Analyses
 - Description of the Method
 - Practical Exercise

RCFA Reporting

- Key Reporting Element
- Practical Exercise: Plant Example