

# ROOT CAUSE FAILURE ANALYSIS (REF:OTSRCFA001)

## Course Objectives

To gain a detailed understanding of the Root cause Failure Analysis.

## Course Description

Machinery Failure Analysis and Root Cause Failure Analysis (RCFA) and the crucial role they are now playing in maximizing the reliability and the effectiveness of machinery for companies to remain competitive in a global place. The purpose of RCFA is to resolve problems that effect plant performance. The course will also outline why and when not to use Root Cause Failure Analysis and shall also look at a brief introduction to Asset Management.

## Who Should Attend

Personnel involved with design, operation and maintenance of equipment including supervisors planners and engineers. It is of value to those involved in failure analysis and those who are considering its use.

## Pre-Requisites

All Attendees should have a sound power generation background.

## Course Outcome

At the end of this course you will be able to analysis machinery failure.

## Course Outline

### Day 1

Introduction

#### *Root Cause Failure Analysis*

- The nature of failure
- Purpose of the analysis
- Effective use of the analysis

### Day 2

#### *Root Cause Failure Analysis*

- Failure modes and effects analysis
- Fault - Tree Analysis
- Cause and Effect Analysis
- Sequence of Effect Analysis

### Day 3

#### *Machinery Reliability*

- Risk assessment and management
- Dependability and life cycle management
- Reliability and maintainability
- Reliability techniques

### Day 4

#### *Additional Issues Related to Failure Analysis*

- Distinction between problems and opportunities
- Ongoing aspects of failure analysis

### Day 5

#### *Additional Issues Related to Failure Analysis*

- Introduction to Condition Monitoring
- Course Review and Feedback

