

Root Cause Failure Analysis

PT Samson Tiara certified Root Cause Failure Analysis training for maintenance, reliability, engineering, and operations personnel, covering RCFA principles, systematic investigation steps, FTA, Fishbone Diagrams, 5-Why Analysis, FMEA, Pareto Analysis, and PDCA-based corrective action.

DURATION	VALIDITY	LANGUAGES	DELIVERY	ACCREDITED BY
3 Days	3 Years	English · Indonesian	On Request	Samson Tiara



Overview

Root Cause Failure Analysis (RCFA) is a PT Samson Tiara certified course designed for organisations seeking to improve equipment reliability, reduce recurring failures, minimise downtime, and control maintenance costs. The course equips participants with the knowledge and tools required to identify the true root causes of failures and prevent them from recurring.

Many plants and factories lose time and resources by repeatedly “firefighting” equipment problems without addressing the underlying causes. RCFA provides a systematic approach to failure investigation, helping teams move beyond symptoms and identify corrective actions that support long-term reliability improvement.

The course introduces industry best practices and proven RCFA methodologies, including Fault Tree Analysis (FTA), Fishbone / Ishikawa Diagrams, 5-Why Analysis, Failure Mode and Effects Analysis (FMEA), Pareto Analysis, and the use of the PDCA cycle to support implementation of corrective measures.

Who is it For?

This course is suitable for personnel involved in maintenance, reliability, engineering, operations, and process improvement, including:

- Reliability Engineers
- Project Engineers
- Reliability Analysts
- Maintenance Engineers
- Maintenance Team Leaders
- Technical Engineers
- Operations Engineers
- Process Engineers
- Personnel involved in failure investigation and reliability improvement

Course Delivery

The course is delivered over **3 days**. Training is available at PT Samson Tiara's Cilegon and Jakarta facilities, or as an in-house programme.

Learning Objectives

By the end of the Root Cause Failure Analysis course, participants will be able to:

- Understand the origins and development of Root Cause Failure Analysis.
- Explain the purpose and benefits of conducting RCFA within a maintenance and reliability context.
- Apply a systematic approach to implementing RCFA processes effectively.
- Distinguish between Root Cause Failure Analysis and standard failure investigations.
- Use best-practice RCFA tools with clear explanations and practical examples.
- Apply post-analysis actions using the PDCA cycle to support implementation of corrective measures.

Course Content

- History and Evolution of Root Cause Failure Analysis (RCFA)
- Purpose and Objectives of RCFA in Improving Reliability and Reducing Failures
- Systematic Steps for Implementing RCFA Effectively in Industrial Settings
- RCFA versus Standard Failure Investigations: Key Differences and Applications
- Fault Tree Analysis (FTA)
- Fishbone / Ishikawa Diagram
- 5-Why Analysis
- Failure Mode and Effects Analysis (FMEA)
- Pareto Analysis
- Detailed Explanations and Practical Examples for Each RCFA Tool
- Post-Analysis Actions
- Applying the PDCA Cycle: Plan, Do, Check, Act
- Implementation of Corrective Measures

Assessment

Participants must successfully complete the course based on the required performance standards in order to receive certification.

Certificate

Participants who successfully complete the course and meet the required performance standards will receive:

- PT Samson Tiara Root Cause Failure Analysis (RCFA) certificate.

Ready to book?

Contact our booking team for the latest schedule and registration.

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