# ROOT CAUSE ANALYSIS

& Incident Investigation

EFFECTIVE HUMAN INTERVENTION (PTY) LTD LEADERS IN TRAINING

**Includes** various Analytical Tools and Reports such as Problem Statements, Brainstorming, Cause & Effect Diagrams & Data Analysis Graphs. Exercises on how to eliminate dangerous or repetitive problems.

Recognised for Continuing Professional Development (CPD) by SAAMA in accordance with ECSA guidelines

where?





EHI HAS BEEN ACCREDITED BY MERSETA | ACCREDITATION NO: 17-QA/ACC/0603/11 | B-BBEE LEVEL 2 CONTRIBUTOR

where

who?

why?

what

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# **ROOT CAUSE ANALYSIS**

#### **COURSE SYNOPSIS**

Business success is dependent on effective resolution of the problems that present themselves every day. Often the same or similar problems continue causing repeated losses in time or money and your staff become experts at fixing rather than preventing the problems. Learn to find and fix root causes and develop corrective actions that will effectively eliminate or control these problems

#### **COURSE OUTCOMES:**

- Understand when, why and where to apply an RCA problem solving intervention.
- Understand how to analyse a problem and how to break it down to until the real problem becomes visible.
- Learn what tools are available to make the problem visible and understandable.
- Be able to draft an effective action plan to solve the problem and review the effectiveness of the solution.
- Be able to document and communicate process followed so it can be applied to other similar or related process problems



### CUSTOMISED VIRTUAL TRAINING AND/OR IN-HOUSE TRAINING

If you wish to organize a Virtual Instructor Led Training session or In-House session for your organization, we will custom design a session that will help you achieve your desired learning goal. The main advantage of custom designed VILT, in addition to being significantly cost effective, is that they address topics specifically related to the needs of your organization. To discuss the possibility of designing and conducting such a session or In-House training session, contact us on 021 979 5891 or callie@ehiafrica.co.za for a comprehensive quotation.

### WHO SHOULD ATTEND?

Quality and process Engineers, Technicians, Corrective Action Coordinators or Managers; Supervisors, Team Leaders, and Process Operators; anyone who wants to improve their ability to solve recurring problems.

#### **BENEFITS INCLUDE:**

- Participation in an interactive workshop.
- Learn by interacting with other course attendees in similar problem situations.
- Supportive Workbook to exercise the techniques and skills demonstrated in the course.
- Certificate of completion on successfully completing all the required Workbook tasks
- Accredited to gain 3 CPD points by SAAMA
- Accredited to gain 5 CPD credits by SAIOSH

### ABOUT YOUR COURSE FACILITATOR

Mike Bosse is registered with various Sector Education and Training Authorities for subjects ranging from Engineering to Manufacturing as well as Learnership and Human Resource Management. His experience was gained in the Automobile Manufacturing Industry as well as the Steel Manufacturing and Elevator and Escalator Industries.

For the past 15 years Mike has conducted courses for various large corporations across Southern Africa including Mozambique, Swaziland, Namibia, Democratic Republic of Congo.



#### **REGISTRATION CONFIRMATION**

Complete your registration form and select whether Virtual or Public. Receive your invite and confirm your VILT session by clicking on the link in the email invite. Click "Add to calendar" to ensure you do not miss the training course.

Alternatively, a signed In-house quotation will secure your group training session, followed by an invoice and date confirmation.

## **ROOT CAUSE ANALYSIS**

### COURSE OUTLINE 3 Modules covering 13 Topics

Module 1: Brief Introduction to Root Cause Analysis and its relevance to industry

### Session 1: Relevant background to RCA

- Initial response to a Problem
- Identifying what actions is required
- Principles of RCA vs Problem solving

### Session 2: Process of Root Cause Analysis

- Different approaches and applications of RCA
- Systematic application of RCA

### Session 3: Establishing the RCA Team

- Who should lead the process?
- Structure and relevance of team members.
- Required outcomes contract.
- Allocate roles and responsibilities.

# Module 2: Practical application of the RCA Process.

### Session 1: Defining the problem

- Analyse the problem owners report and establish the facts.
- Scope the problem.
- The problem statements

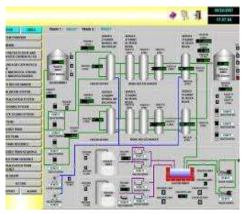
# Session 2: Understanding the operational process

- Flowcharting the process
- Establish boundaries of the process
- Gather the necessary
- Documents, drawings, and information.

### Session 3: Identifying the possible causes

- Identify most likely problem area in the flow process.
- Brainstorm possible causes for this problem. Is or Is-not diagram
- Draft a Cause and Effect diagram.
- Establish a fault priority list.





### **DEFINING PROBLEMS**

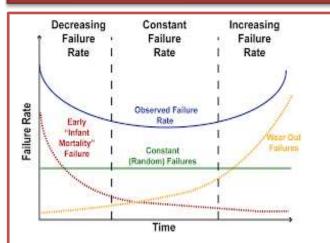


### **PROCESS COLLECTION**





## **ROOT CAUSE ANALYSIS**



### Session 4: Collect the data

- Organise the data collection process.
- Compare current vs new data
- Organise data in comprehensible list.

#### Session 5: Analyses the data

- Question the data
- Analyse variation
- Rank outcomes
- Identify real problem

#### **Session 6: Select solution**

- Identify best solution for the problem
- Create action list to implement solution.
- Agree on contingency plan
- Establish a support list, Standby persons/equipment, HSE, OEM's.

### **Session 7: Implement the solution**

- Implementation agreed solution
- Evaluate effectiveness of repair
- Test equipment / process for functionality
- Release of equipment/ process documentation and process.



# Session 8: Report back and rescind contract

- Table results in meeting
- Implement solution to all relevant cases.
- Archive all documents / pictures
- Congratulate and Release RCA Team





### Module 3: Continuous Improvement

- Continuous Improvement mindset
- Gemba walks using PDCA
- DMAIC (Define, Measure, Analyse, Improve, Control)
- Human error and incident
  management

