



ROOT CAUSE FAILURE ANALYSIS FOR MAINTENANCE

SBL
SCHEME

In-House Training Available

INTRODUCTION

A failure is resolved immediately after a replacement is fixed. All the inconvenience and difficulties are forgotten the moment the equipment starts to operate. The raw data 'the defective part' has no significance and may land-up in the rubbish bin. This goes well until the same failure returns or a related failure appears and the cycle continues. This is a waste of time and effort and poses questions, i.e. 'Is our maintenance still reactive? What can we learn from the failures and how to proactively eliminate them? This programme answers these questions and gives insights on failure causes and how to overcome them. Participants will appreciate the power of data and the application of 'Root Cause Failure Analysis' to overcome future failures.

CONTENTS

Module 1: Autonomy of Failures

- What is equipment failure?
- Why equipment fail?
- Types of equipment failures
- Life cycle characteristics
- Failure contribution to cost

Module 2: Root Cause Analysis

- Why Root Cause Analysis?
- Importance of data
- How to conduct analysis?
- Root Cause Analysis steps

Module 3: Mechanical Failures

- Understanding the basics
- Types of mechanical failures
- Investigation stage
- Analysis stage
- Prevention stage
- Maintaining basic condition

Module 4: Electrical Component Failures

- Causes of electrical component failures
- Failure analysis map
- The 'hidden factor'
- Improving failure frequency

Module 5: Pneumatic Failures

- Understanding basic operation

- Common components of pneumatics
- Causes of pneumatic malfunction
- Steps to prevent pneumatic failures

Module 6: Proact Failures

- 'Proact' strategy
- Benchmark indices
- 'Poka Yoke' your failures
- FMEA 'decision diagram' methodology
- Predictive maintenance concepts

OBJECTIVES

At the end of the programme, participants will be able to:

- understand what causes failures;
- know how to analyse failures;
- apply 'decision diagram' methodology;
- draft proactive maintenance strategy; and
- use proactive tools to overcome failures.

FACILITATOR

Mr P. Balachandran is a training consultant with over 17 years of experience in manufacturing and 7 years in training. Mr Balachandran began his career in the Equipment Maintenance function in Motorola Malaysia and grew steadily to become an Equipment Engineer. He later took on a position as Section Head for a Production Unit which he ran for several years. He moved on to Thomson Audio Electronics in Muar as a Production Manager in 1991 where he spent 2 years. Subsequently, he assumed a position as Production Manager and then as a Training and Education Manager at Samsung Electron Devices, Seremban till July 1995.

Mr Balachandran specialises in equipment maintenance, manufacturing and training. His vast experience makes him valuable as a resource person for Human Resource Development in the Manufacturing sector. Mr Balachandran currently is a Member of the Society for Maintenance and Reliability Professionals of U.S.A.

WHO SHOULD ATTEND

Maintenance Engineers, Maintenance Supervisors, Maintenance/Predictive Maintenance Technicians and also Equipment personnel.

ADMINISTRATIVE DETAILS

Dates : **Mar 21-22, Aug 8-9, Nov 23-24, 2011**

Time : 9.00 am – 5.00 pm

Venue : FMM Institute
Wisma FMM, 2nd Floor
No. 3, Persiaran Dagang
PJU 9 Bandar Sri Damansara
52200 Kuala Lumpur

Fees : FMM Members – RM750 per participant
Non Members – RM950 per participant

(Fees include course materials, Certificate of Attendance, lunch and refreshments)

Registration is on a first-come-first-served basis. Cheques made in favour of the “**FMM Institute**” should be forwarded one week before the commencement of the programme. Completed registration form, that is faxed, mailed or e-mailed to FMM Institute, would be deemed as confirmed.

All cancellations must be made in writing. There will be no charge for cancellation received 10 or more working days before the start of the programme. Cancellation received 6 – 9 working days before the start of the programme is subject to a cancellation fee of 50% of the course fees. Cancellation received 5 working days and below before the start of the programme is subject to a cancellation fee of 100% of the course fees. If the participant fails to attend the programme, the full course fees are payable. However, replacement can be accepted at no additional cost.

10% discount is applicable for registration of three (3) or more participants from the same organisation and of the same billing source.

The FMM Institute reserves the right to change the facilitator, reschedule or cancel the programme and all efforts will be taken to inform participants of the changes.

For further enquiries, please contact:

Ms Ravathi/Pn Hafifah

FMM Institute

Tel: 03-62867200 Fax: 03-62756064/62776712

* Visit us at www.fmm.edu.my

REGISTRATION FORM

ROOT CAUSE FAILURE ANALYSIS FOR MAINTENANCE

FMM Institute Kuala Lumpur

The Manager
FMM Institute
Tel: 03-62867200
Fax: 03-62776712 / 62756064

Please tick (√) accordingly:

PSMB Scheme

SBL

Non-Contributor

Require vegetarian meal

Yes

No

March 21-22, 2011

August 8-9, 2011

November 23-24, 2011

Dear Madam,

Please register the following participant(s) for the above programme.
(To be completed in BLOCK LETTERS)

1	Name	Designation	E-mail
	_____	_____	_____
	Nationality	IC No.	
	_____	_____	
2	Name	Designation	E-mail
	_____	_____	_____
	Nationality	IC No.	
	_____	_____	

(If space is insufficient, please attach a separate list)

Enclosed cheque/bank draft No. _____ for RM _____

being payment for _____ participant(s) made in favour of the **“FMM Institute”**.

Submitted by:

Name: _____

Designation: _____ E-mail: _____

Company: _____

Address: _____

FMM Membership No.: _____ My Corporate Identity No.: _____

Tel No.: _____ Fax No.: _____ Date: _____