Course Outline

TECHNICAL TROUBLESHOOTING AND DECISION MAKING A STRUCTURED APPROACH TO SOLUTION

Learn From the best

Introduction

The quality of your results is based on the quality of your decisions. In a failure analysis, we are very much concerned about the reliability of various functioning components in the systems, the system safety associated with production and ability of the system to function as planned.

Your best decisions are built on a sharp and focused ability to analyse situations, people and probabilities

Trouble-shooters are highly skilled workers but are becoming an increasingly rare breed in the workforce. Attending training courses are to possess valuable knowledge set, while the real troubleshooting skills are learned on the job over a long period of time from experienced maintenance personnel.

Learning Points

At the end of the course the participants will be able to:
- Understand concept of problems solving and decision making.
- Understand how to define, and analyse problem.
- Describe what makes an effective troubleshooting.
- Collect evidence to review the fault symptoms.
- Develop their ability to think “outside the box”
- Isolate the faulty component/system.
- Understand how to make decision rationally
- Close out the problem effectively.
- Review your performance go for continuous improvement

Duration

The duration of the course is 2 days.

Who Should Attend

Technical Troubleshooting and decision Making is a team activity consists of Managers, Equipment Engineers, Supervisors and Maintenance Technicians (mechanical, Electrical and instrument disciplines) to participate in it.
Also, for those who are in operations would like to acquire an understanding of how the quality of the maintenance activities affects their equipment function.

Course Outline

Module 1

Introduction to define and understand Problem Solving

1.What is a Problem?
2.Be creative about your problem definition.
3.Turn problems into opportunities
4.Steps in defining Problem Solving"
5.Are all "Decisions" really a "decision?"
6.Do we "need "to solve problem?
7.What is Decision Making
8.How problem differs from decision
9.Team Exercise: Problem Solving in Action

Module 2

Failure Classification

1.Identification of failures
2.Sporadic failures
3.Chronic failures
4.Understanding the critical 6 Losses
5.P-F Curves
6.Team Exercise: Prioritizing Failures using P-F Curves

Module 3

Creative toolkits and Techniques for Problem Solving

1.Thinking out of the box
2.Five Why Technique
3.Fish Bone Diagram / Ishikawa/ Cause and Effect
4.The Root Cause Analysis
- Pareto Technique
- Creative thinking

5.Team Exercise: Creating Fish Bone Diagram / Ishikawa/ Cause and Effect diagram

Module 4

Perform Root Cause Analysis

1.Step 1: Observe or collect the relevant data.
- Data gathering
- Fact-finding

2.Step 2: Analyze the data and look for relationships
- Data analysis
- Historical analysis
- Think outside the box

3.Step 3: Identify Possible Causal Factors
- 5 Whys – Ask "Why?"

4.Step 4: Identify the Root Cause

5.Step 5: Recommend and Implement Solution

Module 5

Key Lean Manufacturing Tools

- 1.Quick Change-overs
- 2.Introduction to Poka Yoke Error Proofing
- 3.Kaizen Improvement Process
- 4.Introduction to SMED & Examples
- 5.Steps Involved in Internal & External Activities

Module 6

Key Lean Manufacturing Tools

- Maintenance “a reliability function”
- Importance of good decision making

6 key points for effective decision making
- Maintenance Strategies

1. Preventive maintenance
2. Predictive Maintenance

- Diagnostic Tools

3. Vibration
4. Thermography

- Developing SMART objectives

About Elite Indigo

Elite Indigo Consulting provides corporate training to the semiconductor and manufacturing industries. With a humble beginning of one founding member with passion and desire to share his 20 years of experiences in Smart Manufacturing for global manufacturing facilities, now, we have a strong and competent team of 20 members, all aligned with company mission, vision and core values.

Our Mission

"Transform Data into Insights - Leap Forward"

Our Vision

Be a Global Trusted Advisor in the Areas of Skills Development, Consultancy & Software Solutions specialising in Semiconductor & Manufacturing industries.

Our Core Values