Design FMEA for Aerospace Suppliers

3x 3½-hour Programme

Smallpeice Enterprises
business improvement training

In-Company Training

This programme is available for cost effective 'in-company' group training. For more information on the options, please email train@smallpeice.com.

Overview

FMEA is a mandatory requirement for many companies - providing a process for categorising failures in order to prioritise items of risk. This practical workshop will step delegates through a case study-based workshop - learning how to analyse the product functions in terms of risk, identify failure modes and effects, and understanding how to set priorities using the severity rating scale.

- Introduce the concept and types of risk management
- Practise the FMEA method
- Understand the links between the FMEA types
- Learn how to generate a validation plan
- Know how special characteristics are managed
- Understand how FMEA links with other quality tools
- Recognise what is best practice in FMEA management

Training Content

The Concept of Design Risk
- Introducing the fundamentals of engineering risk management

Risk Management Types
- Various types of risk analysis that are available to the engineer

FMEA Types
- How FMEA practice is used to establish a foundation for improvement and decision making
- How FMEA connects with the GKN Lifecycle gates

The AS13100 / RM13004 Standard
- What standard is being used?

The FMEA Method
- The use of a common approach

Project Design Risk Review
- How can DFMEA practice help a product development project?

1Structure Analysis
- What level of detail is to be analysed?

Functional Analysis & Requirements
- Defining success

Failure Modes
- Defining the places to be avoided

Effects & Severity
- Giving the Failure Modes priority

Causes, Prevention Control & Occurrence
- What potential design weaknesses could lead to the Failure Mode and their likelihood

Detection Control & Detection
- How is it known that the design is right?

Current Risk
- Review the FMEA story to determine where mitigating action needs to be taken

Action Creation, Review & Planning
- Recommend actions. Review, authorise and plan them

Residual Risk
- Determine action impact on overall design risk

Reference Content
- How to create a stock of DFMEA content that can be used for a particular product type

Verification Plans
- Using DFMEA Detection Controls as the foundation for Verification Plans

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