Design Failure Mode and Effects Analysis (DFMEA) Overview

It costs far less to prevent a problem a problem than it does to correct it after it has been designed into the Product. The DFMEA is a structured, disciplined approach to identifying and prioritizing potential problems before they are embedded into the Product Design. This powerful hands-on 2-3-day seminar shows you how to perform a DFMEA that gets results and saves you money and aligns with the requirements of ISO9001:2015 & IATF 16949, Clause 6.1 – Actions to address risks and opportunities for Risk Management. *Note: Students will analyze and develop a DFMEA for a current organizational process of their choice.*

Hours: 8 a.m. – 4 p.m.
Length: 1 day

Course Objectives
Participants will learn:

- The importance of the DFMEA and how it can be used to reduce the risk of product failures.
- The importance of maintaining the DFMEA current.
- A systematic, consistent process for developing DFMEA's that will identify product weaknesses
- How to use the DFMEA to identify potential special characteristics.
- How the DFMEA is used to help build the PFMEA.

Who Should Attend:

Managers, engineers, team leaders, quality and contract professionals, procurement specialists and others who serve as members of the FMEA Development team.

Related Seminars:

- ISO 9001:2015
- IATF 16949
- Process FMEA
- Advanced Product Quality Planning

RPM Consulting, Inc.
Quality & Management Systems
Training & Consulting

Seminar Content

Risk Management and the FMEA
- The Nature of Risk
- The Failure Sequence
- The FMEA Process
- FMEA and APQP

FMEA Basics
- The Function of the FMEA
- FMEA Structure
- Who is the Customer?
- Who is the Team?
- The FMEA as a Living Document

Identifying Design Function(s)
- Understanding Design Function(s) of a specific Design level

Identifying Failure Modes
- Systematically Identifying Potential Failure Modes (Errors)

Identifying Effects
- Systematically Identifying the Effects
- Ranking the Severity
- Using the FMEA to Identify Special Characteristics.

Identifying Causes
- Systematically Identifying the Causes
- Ranking Cause Occurrence

Identifying Controls
- Prevention vs. Detection

Calculating the Risk Priority Number (RPN) and Severity/Occurrence (SO) – Criticality Number
- Calculating SO
- Calculating RPN
- Using the Rankings to Prioritize Risk Reduction

Risk Reduction Actions
- Reducing the Risk Through Prevention
- Reducing the Risk Through Detection
- Re-evaluating Risk after action Taken