



ASQ CRE Prep course

Lesson VII. C. 1.

Failure Analysis Methods



Extracting data from failures

FAILURE ANALYSIS

Root Cause Failure Analysis

Down to cause and failure mechanism



8 Disciplines of Problem Solving

**Step 0: Prepare
for the 8D**

**Collect the Symptoms
Symptoms Checklist
Emergency Response
Action**



Step 1: Form a Team

Core Team Structure
Team Preparation



Step 2: Describe the Problem

5 Why

Problem Statement

Affinity Diagram

Is / Is Not

Problem Description



Step 3: Interim Containment Action

**Verification of
Effectiveness**



Step 4: RCA – Root Cause Analysis

**Differences and
Changes**

Root Cause Theories

Verification

Process Flow Diagram



Step 5: Permanent Corrective Action

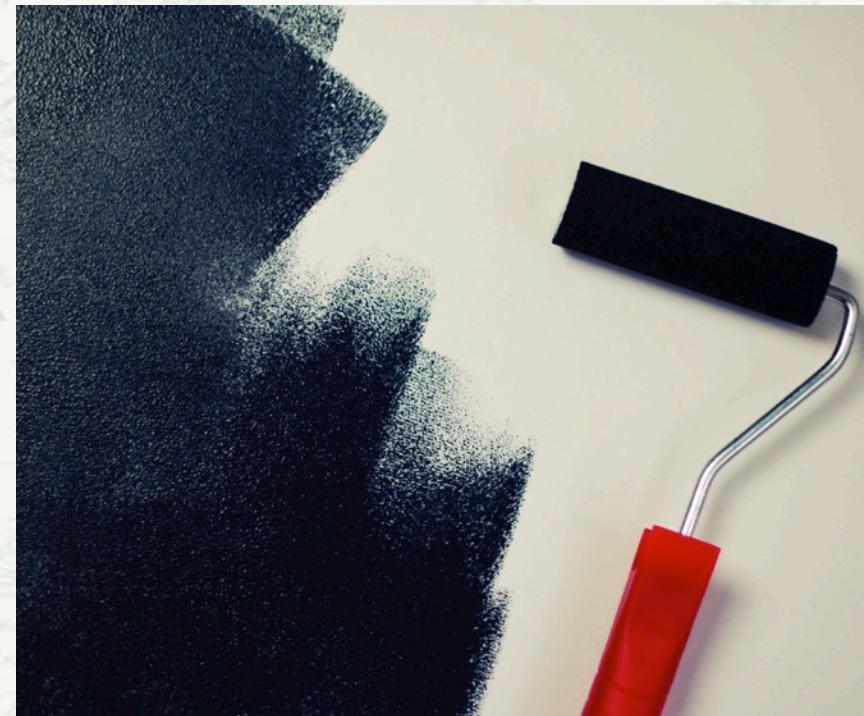
Acceptance Criteria

**Risk Assessment /
Balanced Choice**

**FMEA (Failure Mode and
Effect Analysis)**

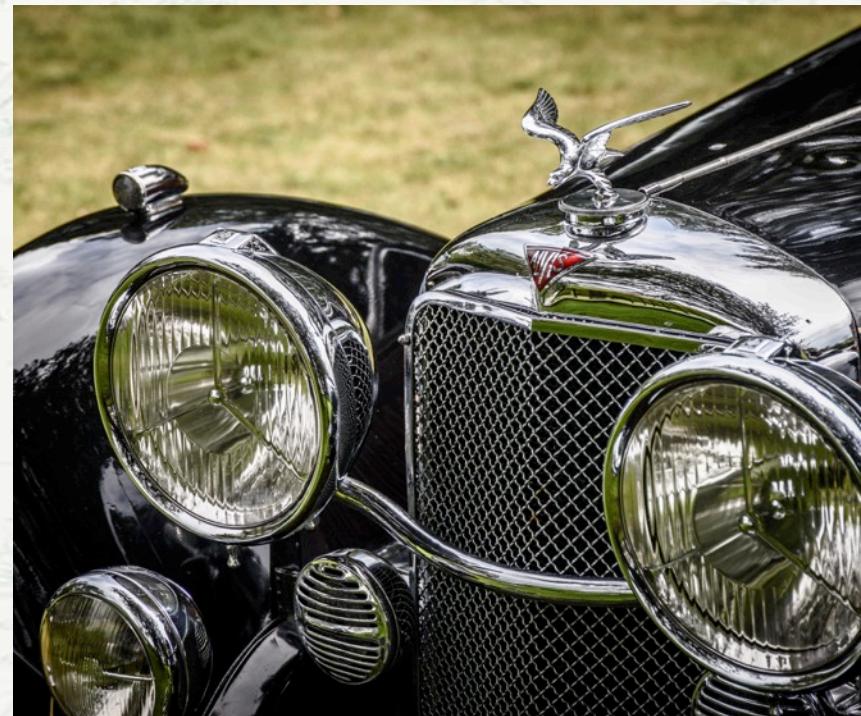
**Control Point
Improvement**

**Verification of
Effectiveness**



Step 6: Implement and Validate

Project Plan
Validation of
Improvements



Step 7: Prevention

**Similar Products and
Process Prevention**

Systems Prevention

**Standard Work or
Practice**

**Procedures / Policy
Updates**



Step 8: Closure and Team Celebration

Archive Documents

Team Lessons Learned

**Before and After
Comparison**

**Celebrate Successful
Completion**



Why avoid
sending to
vendor for FA?



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Lesson VII. C. 2.

Failure Reporting, Analysis,
and Corrective Action System