



Defect Reduction Process Example

By: Greg Hart, President - Hart Innovative Solutions, Inc.

Select Product and Process for Improvement

- Product Focus: Process Focus:

Meeting Flow

- *Part 1*
 - Purpose: To understand the big picture
 - Customers: Products - specifications and yield
 - Suppliers: Inputs – specifications and critical characteristics
 - Process Overview
 - Agenda:
 - Introduction, Background and Case for Action
 - Present: Quality Problem Solving Overview
 - Company and Improvement Goals
 - Improvement Process
 - Prepare **SIPOC** Form
 - **S**uppliers – critical suppliers
 - **I**nputs important characteristics
 - **P**rocess – Major steps and process areas
 - **O**utputs / Products – Products delivered, Yield and Examples
 - **C**ustomers – Who, Customer Needs (Critical Specifications)
 - Identify Problem Statement
- *Part 2*
 - Purpose: To develop a comprehensive process understanding
 - Steps and Inputs
 - Problems / Defects
 - Root Causes
 - Agenda:
 - Present: Quality Problem Solving Overview (Part 2)
 - Process Mapping
 - Root Cause Analysis
 - Homework: Process Mapping and Root Cause Analysis articles
 - Prepare Process Map: Process Steps, Inputs and Inspections
 - Develop Root Cause Analysis
 - Fishbone Diagram / CEDAC / Ishikawa Diagram
 - 7 M and E
 - Materials
 - Manpower – People
 - Methods – Process
 - Measurement
 - Management
 - Machine – Equipment and Tooling
 - Maintenance
 - Environment – Surroundings

- Map Problems and Root Causes to Process Map
 - Problems / Defects Observed – description and location
 - Root Causes – descriptions and location
- *Part 3*
 - Purpose: Develop plans and methods to measure and report quality
 - Agenda:
 - Present: Quality Problem Solving Overview (Part 3)
 - Defect Reduction
 - Cost of Quality
 - Homework:
 - Brainstorm and Define Measurements
 - Data Collection
 - Measurement / Process Control
 - Management Reporting and Follow-up
 - Develop Measurement Action Plan
 - Collect Data, Analyze Data and Root Causes
 - Report and Manage – feedback loop
- *Part 4*
 - Purpose: Identify improvement alternatives, and priorities. Select and convert to Action Plans
 - Agenda:
 - Brainstorm Improvement Alternatives to Address Root Causes
 - General – company or manufacturing
 - By area / process step
 - Evaluate Alternatives
 - Criteria – Weight
 - Impact, Cost, Resources and Timing
 - Prioritize – Bubble-up – Paired Comparison and/or Pareto Ranking
 - Develop Action Plans
 - What (Action), Who and When (Due Date)
 - Progress and Next Steps