



8-D Problem Solving Skills

Overview: Provide class participants with the skills need to identify, contain, investigate and solve problems. Class will include a variety of tools to support the problem solving process.

Training Options:

Option #1 Application Oriented Team Training 2-day (16 hour course) designed to provide participants with problem solving skills. Class typically taught in four non-consecutive half-day sessions and the training is conducted in context of teams working on actual assigned problems. Will require pre-work to define problems and select teams.

Option #2 Classroom Oriented Team Training 1-day (8 hour course) designed to provide participants with problem solving skills. Class typically taught in either one 8 hour session or two consecutive half-day sessions. Training utilizes a Case Study in a classroom environment.

Audience: Quality professionals, supervisors/managers, engineers, senior technicians as well as cross-functional members of the organization. Students will require minimal math skills (adding, subtraction, calculating percentages). Class is very action oriented, and it is best if class is aligned with problem solving teams.

Course Outline:

- Overview of Problem Solving
 - Class objectives
 - Benefits of Problem Solving as a methodology
 - Problem Solving System Terms and Vocabulary
 - 7-Step Model for Problem Solving

- 8-D Step 1 Problem identification
 - Step 1 Problem Solving Worksheet
 - Creating a Problem Statement
 - Establishing the Team
 - Team Roles and Responsibilities

- 8-D Step 2 Understand the problem
 - Step 2 Problem Solving Worksheet
 - Defining problem parameters (establishing a baseline of data)
 - 5 W's and 2 H's

- 8-D Step 3 Containment action
 - Step 3 Containment Action Worksheet
 - Typical containment actions

- 8-D Step 4 Root Cause Analysis
 - Brainstorming Techniques
 - 5 Why's



- Process Flow Charting and Process Flow Analysis
 - Pareto Analysis
 - Cause and Effect Analysis (Ishikawa Diagram)
 - Trend Analysis
 - Scatter Diagrams (correlation analysis)
- 8-D Step 5 Solution development and selection
 - Concept Selection Matrix
 - Risk Analysis
 - Action Planning
 - Gantt Chart
 - Balance Sheet
- 8-D Step 6 Solution implementation and verification
 - Team progress meetings
 - Force Field Analysis
 - Evaluation of effectiveness
- Step 7 Prevent Recurrence
 - ISO 9001:2008 and Problem Solving
 - Process Documentation
 - Training Plans
 - Definition of ongoing metrics and responsibilities
- 8-D Step 8 Congratulate the Team
 - Management Presentations
 - Story Board Construction
 - Team Recognition Process
- Issuance of Final Exam