

## 2-Day Systematic Planning of Industrial Facilities (SPIF)

### Description

A practical workshop on planning the five components of an industrial facility: layout, material handling, communications, utilities, and the building itself. Focus is on physical arrangement and material flow. Applicable to major building expansions, construction of new buildings, or redevelopment of large existing facilities. Designed for the persons preparing the plans and managing the project. This course teaches a proven, internationally acclaimed methodology, Systematic Planning of Industrial Facilities (SPIF). The techniques presented can be put to immediate use on your current or next facilities planning project.

### Objectives

- To maximize the value of major facilities investments.
- To improve the planning and management of major rearrangements, expansions, and new site development.
- To save time and prevent oversights on major capital projects.

### Who Will Benefit

- Plant and Production Managers
- Industrial and Process Engineers
- Plant and Facilities Engineers
- Architects and site planners

### Timing

Duration: 2 days  
(1-Day Highlights course also available)  
Start each day: 8:00  
AM Break: 10:30  
Lunch: 12:00 – 1:00  
PM Breaks: 2:15 & 3:45  
Adjourn each day: 5:00

### Course Outline

#### Day One

##### A. WELCOME AND INTRODUCTION

- The need for planning.
- Levels of physical planning.
- Anatomy of an industrial facility.

##### B. SYSTEMATIC LAYOUT PLANNING (SLP)

- Three fundamentals.
- Planning procedures and techniques.
- Case exercise in Systematic Layout Planning.

##### C. PRINCIPLES OF LAYOUT AND ARRANGEMENT

- Classical types of layouts and when to use each.
- Primary divisions of industrial space.
- Case discussion on division of space.
- The impact of manufacturing cells and lean manufacturing.
- Volume-variety analysis: What it can tell us.
- Primary types of flow patterns.

##### D. PRINCIPLES OF EFFECTIVE MATERIAL HANDLING

- Classical material handling systems and when to use each.
- Types of handling equipment and their uses.
- How to analyze materials and moves.
- The distance-intensity plot and what it can tell us.

##### E. SYSTEMATIC HANDLING ANALYSIS

- Three fundamentals.
- Planning procedures and techniques.
- Case exercise in material handling analysis.

##### F. PUTTING IT ALL TOGETHER

- Systematic Planning of Industrial Facilities (SPIF).
- Communications, utilities, buildings and structures.
- The link to business and manufacturing strategies.
- Differences between short- and long-range planning.
- Key input data.

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### Course Outline continued

#### Day Two

##### A. HOW TO ESTABLISH SPACE REQUIREMENTS

- Five ways to establish space requirements.
- Ratio-trend and projection.
- How to increase output without expansion or new facilities.
- The impact of manufacturing cells on space requirements.
- Timing and addition of plant capacity.

##### B. CASE EXERCISE IN PROJECTING REQUIREMENTS

- Class of space projection.
- How to know when your space is out of balance.
- Land-to-building ratios.

##### C. PRINCIPLES OF SITE & EXPANSION PLANNING

- Ways facilities expand.
- Ground rules of expansion.
- Physical site arrangements.
- Basic growth plans.
- Case discussion – ease of expansion.
- Typical problem situations on small and medium sites.
- Ways to provide flexibility.

##### D. CASE PROBLEM IN FACILITIES PLANNING

- Teams establish space requirements and master site plans for a new manufacturing facility.

##### E. CASE PROBLEM IN EXPANSION PLANNING

- Teams discuss ways to add space and introduce new products to an existing manufacturing site.

##### F. MANAGEMENT ISSUES IN FACILITIES PLANNING

- How to select the best plans and proposals.
- Types of projects and degrees of management attention.
- Types of project organization
- Project scheduling methods.
- What top management wants to know.

### EXTENSIVE REFERENCE MATERIALS AND TEXT

Your 140-page course manual includes a set of practical Working Forms and templates for immediate application on your current or next strategic planning project. And in addition to your course manual, you will also receive *Systematic Planning of Industrial Facilities, Volume I*, by Richard Muther and Lee Hales. This text provides you with a complete, step-by-step methodology, with application examples and a wall chart.