

5-Day Systematic Handling Analysis (SHA)

Description

This is the world's most comprehensive work course on the subject of material handling. Based on Systematic Handling Analysis (SHA), this course presents a practical, proven method universally applicable to any type of handling situation. Originally developed by Richard Muther, and recognized throughout the world, SHA has been successfully used on hundreds of projects. A carry-through case problem and teamwork assure your mastery of the material.

This workshop will prepare you to organize and lead material handling improvements in any type of industrial or logistical operation.

Essential for those who are seeking cost reductions through better handling methods. Also valuable for those who must replace, upgrade, or add material handling equipment.

Objectives

- To reduce material handling costs.
- To improve the planning and performance of material handling systems.
- To improve the skills of those who plan material handling systems.

Who Will Benefit

- Material handling and logistics engineers
- Manufacturing and process engineers
- Industrial Engineers and systems analysts
- Production supervisors and team leaders
- Warehouse supervisors and team leaders
- Cell planning and Lean Manufacturing teams

Timing

Duration: 5 days
(1-, 2- and 3-day versions also available)
Start: 8:15
AM Break: 10:15
Lunch: 12:00 – 1:00
PM Breaks: 2:15 & 3:45
Adjourn Days 1 - 4: 6:00
Adjourn Day 5: 3:00

Course Outline

Day One

A. WELCOME & INTRODUCTION

B. WAYS TO ATTACK MATERIAL HANDLING PROBLEMS

- Checklist and survey.
- Principles of material handling.
- Standard problem-solving approach.

C. MEASURING AND IMPROVING MATERIAL HANDLING PERFORMANCE

- Finding the causes of low utilization and performance.
- Practical application of work sampling and other techniques to material handling operations.

D. SYSTEMATIC HANDLING ANALYSIS (SHA) – A LOGICAL, ORGANIZED APPROACH

- Fundamentals: materials, moves, methods.
- Four phases of systematic planning.
- Steps and procedures.
- Six-step approach for simple problems.
- Example of Systematic Handling Analysis.

E. CLASSIFICATION OF MATERIALS

- Key input data.
- Five physical bases for classification.
- Non-physical characteristics.
- How to classify materials.

F. CASE PROBLEM & DISCUSSION

- Case exercise in measurement of material flow.
- How to account for transportability.
- How to calculate Mag Count.

Day Two

A. QUESTIONS AND REVIEW

B. PLANT LAYOUT & MATERIAL FLOW PATTERNS

- Relationship of layout and material handling.
- Basic fundamentals of layout planning and material handling analysis.
- Classical types of layout plans and their influence on material handling.
- Basic flow patterns and advantages of each.

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Course Outline continued

Day Two continued

C. ANALYSIS OF MOVES (FOR A ONE-MATERIAL SITUATION)

- Process charting symbols.
- How to make an operation process chart.

D. ANALYSIS OF MOVES (FOR A MULTI-MATERIAL SITUATION)

- Route charts.
- Flow-in, Flow-out charts.
- Route-Product movement summaries.
- Calibration and rating of flow intensities.

E. HOW TO VISUALIZE MOVES

- Picturing materials, moves, and layout.
- How to make a quantified flow diagram.
- How to make a distance-intensity plot.

F. CASE PROBLEM & DISCUSSION

- Case exercise in visualizing material movement.

Day Three

A. QUESTIONS AND REVIEW

B. KNOWLEDGE & UNDERSTANDING OF MATERIAL HANDLING METHODS

- Types of material handling equipment.
- Mobile handling equipment.
- Conveyors.
- Other forms of fixed path equipment.
- Cranes and overhead handling.
- Types and uses of industrial containers.

C. INTEGRATING SYSTEM, EQUIPMENT, AND TRANSPORT UNIT

- Classical material handling systems.
- Handling equipment classified by cost data.
- What the distance-intensity chart tells us.
- Reading the quantified flow diagram.

D. HOW TO ESTABLISH THE OVERALL HANDLING PLAN

- Material handling equipment symbols.
- Using the Systematic Tie-In Sheet to determine handling methods.

E. CASE EXERCISE IN PLANNING

- Work in teams to develop an overall material handling plan.

F. CASE PROBLEM CONTINUES

- Teams continue their work.

Day Four

A. QUESTIONS AND REVIEW

- Team presentations and review of overall handling plans.

B. MODIFYING PLANS AND INTEGRATING WITH FACILITIES & OPERATIONS

- The impact of layout and operating strategy on material handling methods.
- Communications & controls.
- Integrated material/data-flow diagram.
- Plan, operate, and support – the total material handling program.
- The anatomy of an industrial facility.

C. CALCULATION OF REQUIREMENTS

- Equipment and manpower calculations.
- Method specifications and requirements.
- Estimating investment requirements.
- Estimating operating costs.

D. SELECTING THE BEST HANDLING METHODS

- Typical methods of cost comparison and justification.
- Typical intangible factors or considerations.
- The weighted factor method of evaluation and selection.

E. PHASE III DETAILED HANDLING PLANS

- Detailing between and within activity-areas.
- Subsystem design.
- Departmental and workplace handling.
- Ergonomics and workplace handling equipment.
- Simulation and animation tools.

F. CASE PROBLEM & DISCUSSION

- Work in teams to develop a detailed handling plan for one departmental area.

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Course Outline continued

Day Five

A. QUESTIONS AND REVIEW

B. PHASE I – EXTERNAL INTEGRATION

- External movements.
- Analysis of incoming and outgoing materials.
- Tie-in with inbound logistical systems and plans.
- Returnable container planning.
- Tie-in with outbound physical distribution plans.

C. PHASE IV – INSTALLATION

- Equipment specification.
- Planning and scheduling the installation.
- Installation checklist and instructions.
- Coordination of projects, skilled trades, contractors, and suppliers.

D. MANAGEMENT OF MATERIAL HANDLING PROJECTS

- Planning, organizing, and controlling material handling projects.
- Differences between full and Simplified SHA.
- Procedure for starting any handling project with SHA.

E. CLOSING REMARKS

OPTIONAL SHA CERTIFICATION EXAM

Our 5-day SHA course prepares those attending to pass our SHA Certification Examination. This exam lasts between 2 and 3 hours. It can be given after the close of the course. The first half consists of true-false, fill-in-the-blanks, and multiple-choice questions about Systematic Handling Analysis (SHA). The second half is spent working a small case problem to demonstrate mastery of SHA techniques. Exams are graded pass-fail.

We charge a modest fee for administering and grading each exam.

Examination is the first part of formal certification in SHA. The second part is Project Submission in which the practitioner submits the documentation of an actual project performed using SHA. This is also graded pass-fail.

Taking the examination only makes sense for those who intend to follow through with a Project Submission.

Those passing both parts receive a Certificate attesting to their proficiency in Systematic Handling Analysis (SHA).