Leaders Development Institute

Certified Courses

Value Engineering

Why Attend

- Value Engineering (VE) is a conscious and explicit set of disciplined procedures designed to seek out optimum value for both initial and long-term investment. First utilized in the manufacturing industry over 70 years ago, it has since been widely used in other industries for many years.
- Value Engineering is not simply a design/peer review or a cost-cutting exercise. Rather, Value Engineering is a creative, organized effort, which analyzes the requirements of a project for achieving the essential functions at the lowest total costs (e.g. capital, staffing, energy, maintenance) over the life of the project. Through a group investigation, using experienced and multi-disciplinary teams, value and cost efficiency can be improved through the study of alternate design concepts, materials, and methods without compromising the functional and value objectives of the client/organization.
- Value Engineering can be applied at any point in a project, even in construction. Nevertheless, typically the earlier it is applied the higher the return on the time and effort invested.
- In most cases, Value Engineering identifies and removes unnecessary expenditures, thereby increasing the value for manufacturers and their customers.

Course Methodology

- The course is interactive and is comprised of lectures, case studies, technical process learning and supplemental discussions related to various industries and the challenges of implementation.

Course Objectives

By the end of the course, participants will be able to:

- Implement Value Engineering in the workplace
- Increase asset reliability and availability to world class standards
- Reduce unscheduled downtime and production interruptions
- Reduce maintenance costs by 50-70%
- Learn global benchmarking standards

Target Audience

- Engineering professionals who have at least three years of experience. Those include Maintenance Managers, Maintenance Supervisors, Maintenance Engineers, Operational Excellence Personnel, Reliability Engineers, Plant Managers, Engineering Managers, Manufacturing Managers, Production Managers, Operations Managers, Project Managers, Asset Managers and Quality Assurance Personnel.

Target Competencies

- Value Techniques
- Budget Analysis
- Life Cycle Costing
- Project Management

Introduction to Value Engineering (VE)

- Objectives of Value Engineering
- When to apply Value Engineering
- Impact of Value Engineering
- Introduction to project scope
- Budget analysis
- Elements of the project budget

Introduction to Value Engineering

- Value techniques
- The Total Value Management Concept
- VE phase relationships – Value management in design
- Classes of Value
- Types of Value
- When to apply Value Engineering

Function evaluation

- Basic and secondary functions

Function Analysis Systems Technique (FAST)

- FAST procedure
- FAST examples

The Six-Step VE Job Plan

- Information
- Speculation
- Planning
- Execution
- Reporting
- Implementation

Speculative Phase Creativity

- Brainstorming
- Nominal group technique
- Cause and effect analysis
- Pareto charts
- Total Cost concept
- Life Cycle Costing (LCC)

Building on speculation

- The nature of information
- Elements of manufacturing cost

VE Workshop Team Projects

- Review VE plan of attack

Report format

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