SAMIRODEH

ENGINEERING SOLUTIONS

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Risk Based Maintenance

From 06-10 October, 2019 in Jeddah KSA

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Techno- Commercial Proposal

Risk Based Maintenance

1.1 COURSE OVERVIEW:

Traditionally, construction project have been developed by generating a program of needs, using in-house, or hiring consultants to develop necessary documents, and subsequently award the projects. However, there is no programmed input to implement any kind of Quality Control/Value Assurance program in much of the process. In most areas of the industrial field, e.g. computers, steel, automobiles, aircraft, etc., formal Quality Control/Value Assurance Programs are a basic part of management controls over production. For construction related procurements in large corporations, very few similar programs have been implemented. Value Engineering (VE) a methodology that is known, accepted and has an impressive history of improving value and quality. VE is an organized process that has been effectively used by a wide range of companies and establishments to achieve their continuous goals. The success of the VE process is due to its ability to identify opportunities to remove unnecessary costs while assuring quality, reliability, performance and other critical factors that meet or exceed the customer's expectation. The improvements are the result of recommendations made by multidiscipline teams form all parties involved.

Total Quality Management (TQM) has been recognized and implemented by industries and governments all over the world as the management system, which lead us to prosperity. TQM is a group of thoughts and principles that consists of a series of methods, techniques, and tools. TQM can be defined as "A cooperative form of doing business that relies on the capabilities of both labor and management, using teamwork to continually improve quality, economy and productivity to complete satisfaction of the customer".

Value Engineering and Quality Unnecessary costs do exist in the construction industry because of many factors such as lack of information, lack of ideas, temporary circumstance, honest but wrong beliefs, habits and attitudes, changes in owner requirements, lack of communication and coordination, and out dated standards and specifications. These factors are roadblocks to good value. The best way to overcome these roadblocks is by using the VE/TQM team approach. Individual efforts can be costly and inefficient. Management has learned that by involving more of their organization in the decision making process and committing the organization to a goal, significant improvements can be realized. The quality revolution has demonstrated that waste and inefficiency are unacceptable anywhere in the organization. Therefore, managing value and change is necessary to meet this difficult challenge.

Many characteristics of unacceptable qualities can be traced to the approach taken during the design and management process. Application of Value Engineering with the TQM approach will more closely achieve the desire concept as a totally integrated effort toward improving performance of every process at every level. Value Engineering seeks optimizing and improving decision making to realize the optimal expenditure of owner funds while meeting required function at the lowest cycle cost. VE is a methodology that is comprised of many useful techniques. These techniques create change on purpose rather than letting change occur accidentally.

VE methodology is used to identify and initiate improvements that establish an attitude and awareness of TQM. VE and TQM are synergistic in that they achieve better management of groups of disciplines, than if the disciplines were managed as discreet, independent entities. Many characteristics of unacceptable qualities can be traced to the approach taken during the early design and management process. Value Engineering (VE) seeks optimizing and improving decision making to realize the optimal expenditure of owner funds while meeting required function at the lowest cycle cost. VE is a methodology that is comprised of many useful techniques used to identify and initiate improvements that establish an attitude and awareness of TQM. TVM is the synergy of both VE and TQM. Application of VE within the TQM approach will more closely achieve the desire concept as a totally integrated effort toward improving performance of every process at every level.

1.2 COURSE OBJECTIVES:

This course will introduce new methodologies and techniques that will help you improve your business. It will explore some innovative tools and ideas to enhance your work performance. Upon the completion of this course, you will know how to:

- ✓ Certify in Value Engineering
- ✓ Apply Value engineering for your projects.
- ✓ Use and benefit from Function Analysis.
- ✓ Scientifically compares and chooses between alternatives using QBS
- ✓ Integrate VE within the design process.
- ✓ Integrate VE with TQM.
- ✓ Develop a systematic approach to avoid unnecessary cost.
- ✓ Develop and effective team.

- ✓ Enhance the professional relationship with clients and customers.
- ✓ Identify similarities and differences between VE and other techniques

1.3 WHO SHOULD ATTEND?

In general, this course is intended for all those individuals who are interested in Value, Quality and process Improvement. More specifically to Design and site engineers, Architects, Quality Mangers, Value Manager / Engineers, Construction / Project Managers, Procurement Managers, Industrial Engineers, Maintenance Engineer, Building and Construction Consultants and Professionals. Individuals who are interested in standards and codes related to Industry and construction.

1.4 COURSE DURATION:

FIVE DAYS

1.5 COURSE LANGUAGE:

The Presentation, supplied documents, and workshop exercises of the course are in **English**

1.6 TRAINING METHODOLOGY:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:-

- ✓ 30% Lectures
- ✓ 30% Workshops & Work Presentations
- ✓ 20% Case Studies & Practical Exercises
- ✓ 20% Videos, Software & General Discussions

The course instructor may modify the above training methodology before or during the course for technical reasons with no prior notice to participants.

1.7 COURSE CONTENTS:

DAY ONE:

1.1 Introduction and History of Quality and Value

1.2 Value and Quality concept

1.3 Reasons for unnecessary cost.

1.4 Define Quality and value

1.5 Why Value Engineering

1.6 Information Gathering and scope defining.

DAY TWO:

2.1 Function Analysis

2.2 Workshop (Function Analysis)

2.3 FAST Diagramming

2.4 Workshop (FAST)

DAY THREE:

3.1 Creativity, innovation and speculation

3.2 Team Building

3.3 Road block to Creative & Positive thinking

3.4 Brainstorming, Workshop (Idea Generation)

3.5 Selection Criteria & Idea evaluation, Workshop

DAY FOUR:

4.1 Weighted Evaluation Matrix

4.2 Workshop (WEM)

4.3 Development Phase

4.4 Workshop (Development Phase)

4.5 Total Cost concept, Life Cycle Costing (LCC), Workshop

DAY FIVE:

5.1 Presentation skills, Workshop

5.2 Team Presentation

5.3 Implementing VE proposal

5.4 VE vs. Cost Reduction

5.5 Certification in Value Engineering

5.6 How to integrate VE into your organizational process.

5.7 General discussion and closing remarks.

COMMERCIAL PART:

- ✓ Course Fee Includes The Followings:
- ✓ Course Fee: **SAR 4,950 Saudi Riyal** per person (Including 5 % VAT)
- ✓ Course Training Handouts for all Participants
- ✓ Attendance Certificates to all Participants
- ✓ Course Pre Assessment & Post Assessment
- ✓ Training Venue: with coffee breaks and lunch in the Mövenpick Hotel Tahlia Jeddah
- ✓ Instructor: Air Ticket, Hotel Accommodation, Local Transport

TRAINING FACILITATOR:

Engr. Nikolas Karnavos, MSc, BSc, is a Chemical Engineer with over 35 years of extensive experience within the Oil, Gas, Refinery and Petrochemical industries. He is executive with extensive experience in the field of Environmental, Health, Safety and Quality Management and Audits, possessing in-depth expertise in IPPC sector issues (Permitting, Environmental Impact Studies, CSR, etc.). Has also an extensive experience in design, monitoring, operation and upgrades of industrial WWTPs, waste and hazardous waste management, polluted site restoration, sustainable development, etc. Additional has extensive experience in Laboratory Management and Operation, various instrumental methods of analysis, Laboratory Quality Management (ISO 17025), Statistical Data and Laboratory Analysis.

Mr. Karnavos up to recently was Head of the Environmental Management Directorate at the headquarters of Hellenic Petroleum S.A. to support of corporate positions in environmental issues (cooperation with the Legal Department of the company, support in Supreme Court, etc.), proposals and positions on draft laws and directives (EU), author of corporate environmental procedures, development of CSR, internal environmental inspections, implementation of environmental management systems and Corporate Advisor on environmental issues, carbon trading, consultant and author of the environmental impact study for the upgrade on of the company refineries. The choice for this position was based on my considerable experience in environmental issues and was the main reason I moved at Headquarters. He has contacted several environmental audits in various sites (in Greece and abroad) refineries, terminals, petrochemical plans, head of the project for implementation of Environmental Management and Information System (EMIS). During this period he was also member of the Air Quality Management Group of CONCAWE, member of STF-69 (CONCAWE) for the developing of

emission factors from refineries (co-author of relevant international report). In parallel he was involved in a lot of safety issues (committee, fire drills and training, safety audits, etc.).

During his career life, he had occupied several significant positions as the Environmental Engineer, Process Engineer, Quality Manager, Environmental Department Head of the HELPE S.A. Corporate and Quality Control & Plastics Application Department Head. Has worked also as visitor lecturer at universities and was Partner & Managing Director of AQUACHEM Ltd. Now is working as HSEQ consultant (freelancer) at Intergeo S.A. Currently is working as freelancer instructor conducting HSEQ and Chemical Engineering courses.

Mr. Karnavos holds a Master degree in Chemical Engineering and Bachelor degrees in Mechanical Engineering and Petroleum Engineering from the Aristotelian University of Thessaloniki, Technological Institute and KATEE Kavala respectively. He is an Accredited Trainer for the Organization for the Certifications & Vocational Guidance (EOPPEP) and an Accredited Environmental Auditor from the IEMA. Further, he is the President of Greek Association of Chemical Engineers and an active member of various professional engineering bodies internationally like the IEMA, Technical Chamber of Greece and the CONCAWE. He also published numerous books and scientific papers and delivered various trainings and workshops worldwide.