



COURSE TITLE: BASIC VALUE ENGINEERING – WORKSHOP FACILITATION

Course Duration: 3 days

Course Level: Basic

Overview of Course:

The course explains what is involved in applying Value Engineering (VE) in practice on oil & gas development projects. It also trains participants to lead Opportunity & Project Framing workshops.

Value Engineering is a well-proven technique for optimising value in a wide range of industries. It is applied in Civil Construction, Naval Engineering, Manufacturing and Project Developments. VE is one of the Value Improving Practices (VIPs) recommended by benchmarking organisations such as IPA and it has demonstrably proved it can improve project performance in the Oil & Gas industry. VE is primarily used during the first few development phases (the Front-End Loading) of a project.

The course will cover the background and basic theory of Value Engineering including Functional Analysis System Techniques (FAST) as it is used in VE. The basic workshop techniques used to apply VE in the Front-End phases of projects will be covered and some examples worked through.

DESIGNED FOR YOU, IF YOU ARE...

- A technical professions who will be engaged in facilitating Value Engineering workshops within an Oil & Gas Operating Company or a Service Company
- A project team member who is likely to be engaged in a value improving exercise on a project
- A Facilities, Process or Project Engineer, either a Graduate or a more experienced Technical Professional, looking to broaden your understanding of how Value Engineering is applied in project developments
- A Project Manager who seeks an understanding of how Value Engineering can be used to improve project values
- An Operations Engineer or Sub-Surface Engineer seeking to broaden your knowledge of advanced project development techniques

HOW WE BUILD YOUR CONFIDENCE

The course links theory to application. It reinforces this through the use of examples which are solved by the participants as part of the sessions.

The course is highly interactive and participants are encouraged to share their own experiences and problems to the benefit of all.

THE BENEFITS FROM ATTENDING

By the end of the course you will have seen how the technique of Value Engineering can be applied in the oil & gas industry. You will appreciate how versatile the VE technique is and why it uses the term 'Value' rather than 'Cost'. You will see how important is the preparation work before a VE exercise, particularly getting the key project stakeholders to define what Value they wish to optimise.

You will have an understanding of what it takes to implement VE in a project workplace and what are the optimal stages to apply the technique in a project lifecycle.

TOPICS

- The history of Value Engineering
- Functional Modelling
- The Value Engineering technique as applied in the Oil & Gas Industry
- Preparation for a Value Engineering exercise
- Conducting a Value Engineering exercise
- The Value Engineering Workshop
- Success Factors in Value Engineering

DAILY AGENDA

Day 1: Introduction to Value Engineering

- Course Overview
- History of Value Engineering
- Principles of Value Engineering
 - Defining Value
 - Ranking Value Attributes
 - Setting the VE Baseline and Targets
 - Short Exercise in Value Attributes and Ranking
- Functional Analysis
 - Building FAST models
- Walk-through an Example of Value Engineering
 - Exercise in Value Engineering

Day 2: Value Engineering in Practice

- Setting up a Value Engineering Workshop
 - Framing the VE Exercise
 - Sponsor's Meetings
 - Setting VE Goals

- The Workshop Planning
- FAST Modelling
 - Exercise in building a FAST Model
 - Alternative techniques to FAST Modelling
- Conducting a Value Engineering Workshop
 - Building the Team
 - Facilitating a VE Workshop
 - Workshop Timing
 - Step-by-Step through the Workshop

Day 3: Further Value Engineering Examples

- Exercise in Setting up a VE Workshop
- Presentation of the Workshop Results
- Preparation of a Value Engineering Report
- Following up a Value Engineering Workshop
- Success Criteria for Value Engineering
 - Getting the Preparation and Framing right
 - Workshop Success Factors
 - Realistic Expectations
 - Follow-up to the VE Workshop
- When in the Project Lifecycle to conduct Value Engineering
 - VE Workshops for different Project Stages
- Course Summary and Close-Out

INSTRUCTOR:

Phil Tudhope is currently Director of a consulting company, specialising in technical and project management training for graduates and more senior technical staff. He has a first class honours B.Sc. in Mechanical Engineering from Bristol University and is a Chartered Engineer, Fellow of the Institution of Mechanical Engineers and Associate Member of the Institution of Chemical Engineers.

Phil has 40 years' experience in Project Management, Technical Development and Change Management in the oil & gas industry and proven technical and managerial capabilities to achieve results with a strong business focus and to effect significant positive change. He is a specialist in front-end (feasibility & concept selection) phases of upstream oil & gas developments with midstream (LNG) experience and project execution experience and has the ability to perform analysis and development work as well as lead and motivate teams.

Amongst other roles, he was Specialist Front End Advisor at Petronas Carigali, Chief Process Engineer at BG Group and Head of Upstream Engineering at Shell Technology India. He has experience worldwide in differing political, social and remote environments, having worked overseas for 28 years including the Far East, USA, Europe, the Middle East and India.

Phil is an experienced instructor and was the leader of Value Engineering in Shell where he created the in-house Value Engineering facilitator's training programme.