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# Decommissioning of Offshore Installations

## INTRODUCTION

- Decommissioning Offshore Oil and Gas Installations is an inevitable part of the 'Life of Field' activities. It carries a multibillion-dollar cost with no return!
- We are now faced with the added burden of COVID-19, low oil price and globalization pressures for companies to be more productive and cost effective.
- This training course is aimed at individuals and organisations that are involved in the ultra-late life and decommissioning process. It will enable them to gain a greater strategic view of decommissioning and how key decisions are made and how they interact and influence success, while creating opportunities to improve their individual and organisations delivery.
- A key learning point for delegates will be the opportunity to take part in 'real life' exercises related to decommissioning of a typical offshore asset.

This training course on Decommissioning Offshore Oil and Gas Installation will highlight:

- Strategic decisions to be made and your organisations ability to influence
- Improvements to streamline decommissioning processes
- Capture opportunities to add value
- A deeper knowledge of decommissioning and associated strategies by Interactive exercises and training related to typical field
- Realizing Supply chain, regulatory and innovative technology solutions

## OBJECTIVES

By the end of this training course, participants will:

- Develop a familiarisation of global oil and gas decommissioning activities and challenges
- Develop solutions to your relevant industry key challenges
- Understand various late life and decommissioning strategies and key decisions to be made
- Develop a deeper knowledge of your role and your organisations role in the late life and decommissioning decision process and where best to add value
- Develop a plan on how to apply your knowledge to key decisions and further development needs



## TRAINING METHODOLOGY

- Training will be delivered in a combination of lectures, practical exercises, case studies and team working as appropriate. Emphasis is placed on the interaction between delegates and their discussion of, and contribution to strategic and practical issues.
- The focus will be on covering all the key aspects of decommissioning, taking note of lessons learned from actual projects and case studies.
- The delegates will be taken on a journey starting in the late life of field, circa 8 years from cessation of production (COP). Over the 5 days of this Decommissioning Offshore Oil and Gas Installation training course, the delegates will progress through early planning, preparation, and finally execution and close out of a typical offshore field. During this time the delegates, through a series of exercises, will participate in the development of a decommissioning strategy, schedule and estimate for a typical field.

## ORGANISATIONAL IMPACT

- Organisation will gain a deeper knowledge of its role, potential and opportunities within the late life and decommissioning process, from a strategic and delivery perspective.
- Operators, regulators, and stakeholders will develop their personnel to support more effective decision making to streamline the decommissioning process.
- Supply chain organisations and Sponsors of the supply chain will also gain added insights into opportunities to solve decommissioning industry challenges and how best to position their services/products.

## PERSONAL IMPACT

- Participants will gain a greater insight into all parts of the late life and decommissioning process, gain strategic knowledge, improve understanding of their own role, and appreciate the strategy of all key parties.

Key personal impacts are:

- A detailed awareness of decommissioning
- Learning new skills
- New learning opportunities
- Add further value to his/her organization
- Career development



## WHO SHOULD ATTEND?

- This training course is structured at project management level for key personnel requiring a detail understanding of all aspects of decommissioning.

This training course is suitable to a wide range of professionals but will greatly benefit:

- Oil and Gas Operator key management
- Project personnel including Lead and project engineers
- Asset management professionals
- Operations Personnel,
- Subsea Professionals
- Commercial Managers
- Marine Engineers
- Structural Engineers
- HSE Professionals
- Maintenance Engineers
- Supply chain management personnel
- Regulator key personnel involved with decommissioning
- Certifying authority's key management and engineering personnel
- Key stakeholders

## Course Outline

### Decommissioning Strategy and Planning

- Introduction and 'icebreaker'
- Session 1: Decommissioning – the Myths and the Reality
- Scope of decommissioning
- Statistics (types and numbers of installations)
- North Sea/global decommissioning experience
- Decommissioning forecasts and activity spend
- Stakeholders
- Perception and reputation
- Session 2: Decommissioning Regulations
- International, regional, and national regulations
- Comparison of UK, Malaysia, Brazil, and West Africa regulations
- Overview of regulatory requirements of main O& G countries
- Road Map through the regulatory process
- Uncertainties and issues
- Session 3: Decommissioning Options
- Re-use/alternative use including artificial reefs
- NUI and deferment



## Strategy and Planning (Continued)

- Session 5: Decommissioning strategy
- Late life of field
- Stakeholder engagement
- Contracting strategy
- Organizations
- Drivers, challenges, and risks
- Supply chain
- Session 6: Planning for decommissioning
- WBS and phasing
- Schedule
- Operator Sanction process
- Decommissioning expenditure and estimating
- Risks and challenges
- Session 7: review of day
- Feedback and discussion
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- Preparing for Decommissioning
- Session 8: Engineering and Project Management
- Data gathering
- Surveys and access
- Engineering down of systems
- Temporary utilities and life support options
- Interfaces and management
- Waste management and types of waste
- Cleaning
- Well abandonment
- HSE and Safety Case
- Session 9: Comparative assessment
- Process
- Techniques
- Session 10: review of day
- Feedback and discussion

## Preparing for Decommissioning (Continued)

- Session 11: Offshore activities
- Transition from production to decommissioning
- Training
- Making safe and hydrocarbon freeing
- Scope of preparatory activities
- Well abandonment
- Module separation
- Permit to work
- HSE risks
- Key considerations



- Session 12: Decommissioning Equipment – the ‘Toolbox’
- Survey
- Cutting
- Cleaning
- Well abandonment
- Dredging
- Temporary lifting
- Session 13: review of day
- Feedback and discussion

## The end game

- Session: 14 Removal and Transportation
- Review of removal options
- Piece-small
- Single lift
- Reverse installation
- Reverse float-over
- Overview of heavy lift equipment
- Review of removal options
- Jacket removal considerations
- Review of transportation and offloading options
- Session 15: Decommissioning Subsea Infrastructure
- Scope of subsea activities
- Decommissioning pipelines in situ
- Removal of pipelines and umbilicals
- Removal of subsea components
- FPSO decommissioning
- Lessons learnt
- Session 16: Onshore disposal/recycling and closeout
- Onshore facilities and criteria
- Duty holder considerations
- Closeout activities
- Ongoing liability
- Session 17 End of training
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- Feedback and discussion
- Acknowledgements and recommendations for further reference



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