



The Life-Cycle of Flexible Risers and Flowlines

An Awareness Course



This course has been developed by three flexible pipe manufacturers and key companies associated with system design, failure mode analysis, and integrity management of flexible flowlines and risers. NOPSA, who have safety responsibilities in the decommissioning of flexibles and risers, also contributed.

The course is aimed at those who specify, purchase, approve, install, operate, manage the integrity of, or decommission flexible risers or flowlines, including jumpers.

The course should provide enough knowledge for them to feel comfortable with their responsibilities and is likely to apply to both engineers and non-engineers at various stages in their careers.

Day 1

09.00 Registration and Coffee

Introduction to Flexible Pipe

Design of Flexible Risers and Flowlines

- The structure of different types of flexible pipe
- Materials: plastics and their selection; corrosion considerations for steel
- Static flowline design issues, including flow assurance and impact protection
- Dynamic riser design issues, including dynamic analysis and fatigue analysis

12.15 – 13.15 Lunch

Design of Flexible Risers and Flowlines Cont.

- How flexible pipe is manufactured
- Overview of ancillary equipment
- Future technology (including deep water issues)

Installation of Flexibles

- Installation equipment (reels, carousels, etc)
- Considerations for selection of method, equipment, installation vessel etc.
- Installation analysis: load prediction, sea state limitations, minimum bend radius etc.
- Tie-in operations

16.45 Close

19.00 Course Dinner



PROGRAMME

Day 2

09.00 Coffee

Damage, Degradation and Failure Modes

- How design takes account of failure modes
- Practical experience – use, damage and failure
- Flexible pipe failure modes, and their mechanisms
- How integrity management is linked to failure modes
- Guideline on Flexible Pipe Integrity Management

Applications of Flexible Pipe in the North West Shelf of Australia

- Typical applications in the area
- Site specific design and installation issues
- Case studies

12.35 – 13.35 Lunch

Integrity Management

- Integrity versus Asset management, what is the difference?
- What are the requirements of an IM system?
- How do you apply IM?
- A currently operating asset - study of an actual IM system in action

The legislative aspects of decommissioning offshore facilities

- The Governmental requirements related to safety and environmental aspects of decommissioning activities
- Processes and timelines for submissions
- An overview of recent decommissioning proposals

SUT reserves the right to update/change the programme as it sees fit.



Companies Contributing To The Course:



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