



# The Life-Cycle of Flexible Risers and Flowlines

## An Awareness Course



30<sup>th</sup> & 31<sup>st</sup> March 2011

Fremantle Room, Parmelia Hilton Hotel, Mill Street, Perth, Australia

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.

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

18.00 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

#### Codes & Standards

- Which Codes & Standards are relevant
- Key issues relating to interpretation
- Ongoing developments in the Codes & Standards

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

#### Applications of Flexible Pipe in the North West Shelf of Australia

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

16.45 Close

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



Companies Contributing To The Course:



## Registration Information – The Life-Cycle of Flexible Risers and Flowlines

For further information on this event please contact Joyce Bremner on [j.bremner@sut.org](mailto:j.bremner@sut.org) or call +61 (8) 9446 9903  
To register, either e-mail the information required on the registration form to [perthevents@sut.org](mailto:perthevents@sut.org) or fax the completed form to +61 (8) 9446 9905,

### Registration Fees

SUT Members \$1155.00 (inclusive of GST)

Non Member \$1386.00 (inclusive of GST)

*Included in the Fees:* All refreshments during the Course (including dinner on the first night), and copy of the Course notes.

### Preferred Payment Methods:

**Credit Card:** Mastercard, Visa or AMEX\* ONLY. We cannot accept payment by any other card

\*Please note a 2.75% surcharge will be added if paying by AMEX

**Cheque:** Australian Dollar only, made payable to The Society for Underwater Technology

Send to, Post Office Box 7284, Cloisters Square, Perth 6850

Please make sure you reserve a place by e-mail or fax before posting your cheque.

### Joining Instructions:

Joining instructions will be e-mailed to the registered delegate (as shown on the registration form). Details of Venue, lecturers and updates to the programme will be included in the joining instructions.

### Course Dinner:

An informal dinner will be held in a local restaurant on the first night of the course (details with joining instructions)

### Cancellations:

Refunds will be made on written cancellation received up to ten working days in advance of the event, but will be subject to a 15% handling charge. 50% will be deducted up to three working days in advance and 100% thereafter up to the start of the event. No refund will be given for non-attendance. Delegates may wish to nominate a substitute in their place.

### Transport During the Course:

Delegates are responsible for their own travel arrangements to and from the Parmelia Hilton Hotel.

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## Registration Form

Please e-mail details to [perthevents@sut.org](mailto:perthevents@sut.org) or fax the completed form to (08) 9446 9905

Please tick to indicate your preferred payment method:

SUT Member No. \_\_\_\_\_

Credit Card \_\_\_\_\_ (Visa or MasterCard or AMEX\*) Cheque \_\_\_\_\_ Invoice (PO No.) \_\_\_\_\_

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

E-mail address \_\_\_\_\_ Tel No. \_\_\_\_\_

Credit Card No: VISA or MASTER CARD ONLY. \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Exp. \_\_\_\_\_ / \_\_\_\_\_ Security no \_\_\_\_\_ (last 3 digits on the back of your card)

Name on the card \_\_\_\_\_

Billing Address if not as above \_\_\_\_\_

E-mail address where receipt to be sent for credit card payment \_\_\_\_\_

Amount to be charged \$ \_\_\_\_\_

Signature \_\_\_\_\_