The Life-Cycle of Flexible Risers and Flowlines
An Awareness Course

17th & 18th April 2013
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.

### PROGRAMME

#### Day 1

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>09.00</td>
<td>Registration and Coffee</td>
</tr>
<tr>
<td>09.00</td>
<td>Introduction to Flexible Pipe</td>
</tr>
<tr>
<td>09.30</td>
<td>Design of Flexible Risers and Flowlines</td>
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<tr>
<td>12.15</td>
<td>Lunch</td>
</tr>
<tr>
<td>13.45</td>
<td>Design of Flexible Risers and Flowlines Cont.</td>
</tr>
<tr>
<td>16.45</td>
<td>Close</td>
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<tr>
<td>18.00</td>
<td>Course Dinner</td>
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</tbody>
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**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

#### Day 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>09.00</td>
<td>Coffee</td>
</tr>
<tr>
<td>09.30</td>
<td>Codes &amp; Standards</td>
</tr>
<tr>
<td>09.45</td>
<td>Damage, Degradation and Failure Modes</td>
</tr>
<tr>
<td>12.35</td>
<td>Lunch</td>
</tr>
<tr>
<td>13.45</td>
<td>Integrity Management</td>
</tr>
<tr>
<td>16.45</td>
<td>Close</td>
</tr>
</tbody>
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**Codes & Standards**

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

**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

**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

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

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**Companies Contributing To The Course:**

[Logos of contributing companies]

[www.sut.org.au]
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 or call +61 (8) 9446 9903
To register, either e-mail the information required on the registration form to perthevents@sut.org or fax the completed form to +61 (8) 9446 9905.

Registration Fees
SUT Members  $1050 + GST = $1155
Non Member    $1260 + GST = $1386
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, 5/5 Hasler Road, Osborne Park, Perth, WA 6017
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.

Registration Form
Please e-mail details to 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 ____________________________

(Flexi April 13 V1)