The Life Cycle of Flexible Risers and Flowlines
(An Awareness Course)

24th & 25th August 2016
Cliftons - Parmelia House
191 St Georges Terrace, Perth

This course has been developed by 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.

Presenting Companies Include:
The Life Cycle of Flexible Risers and Flowlines
(An Awareness Course)

Day 1 08:40–17:00
08:40 Registration
08.50 SUT Introduction
09:00 Introduction to Flexible Pipe
Marius Martens, INTECSEA
♦ Selection of flexible pipe vs. rigid pipe
♦ Flexible riser concept selection
♦ Codes and standards
♦ Application of flexible pipe in Australian conditions
10:15 Morning tea
10:30 Design of Flexible Risers and Flowlines
Phil Ward & Erik Tran, Technip Oceania
♦ The structure of different types of flexible pipe
♦ Materials: plastics and their selection; corrosion considerations for steel
♦ Flexibles track record
♦ Static flowline design
♦ Dynamic riser design, including dynamic analysis and fatigue analysis
12:00 Lunch
♦ Overview of ancillary equipment
♦ Future technology (including deep water issues)
15:00 Afternoon tea
15:15 Installation of Flexibles
Geoffrey Lansell, Technip Oceania
♦ 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
17:00 Day end
17:30 Course Dinner

Day 2 09:00–17:00
09:00 Pre-Commissioning / Commissioning
Gilles Gardner, 2H Offshore
♦ Post tie-In testing
♦ Monitoring and survey
♦ Filling, pigging and pressurising
♦ Requirements and acceptance criteria
10:30 Morning tea
10:45 De-Commissioning / International Applications of Flexible Pipe
Stéphan Eyssautier, Subsea 7
♦ De-commissioning: plan for it before installation - makes retrieval easier
♦ Challenging North Sea installation - successful outcome
♦ Brazil flexible field development – an installation contractor experience
12:00 Lunch
12.45 Damage, Degradation and Failure Modes
Victor Gordeyev, Wood Group Kenny
♦ 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
14:00 Afternoon tea
15:00 Integrity Management and Inspection
Skjalg Erdal, Wood Group Kenny
♦ 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
17:00 Certification and Course Conclusion

This programme is subject to change.
Registration Information

The Life Cycle of Flexible Risers and Flowlines Aug 2016

Should you require further information on this event, please contact Jennifer Maninin on j.maninin@sut.org Tel +61 8 9481 0999
To register please e-mail the information required on the registration form to perthevents@sut.org

Registration Fees

<table>
<thead>
<tr>
<th>Category</th>
<th>Fee</th>
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<tbody>
<tr>
<td>SUT Members Early Bird (register and pay before 20th July)</td>
<td>$858.18 + GST = $944.00</td>
</tr>
<tr>
<td>SUT Members (registration after 20th July)</td>
<td>$1072.73 + GST = $1,180.00</td>
</tr>
<tr>
<td>Non Members Early Bird (register and pay before 20th July)</td>
<td>$1018.18 + GST = $1,120.00</td>
</tr>
<tr>
<td>Non Members (registration after 20th July)</td>
<td>$1272.73 + GST = $1,400.00</td>
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Fee includes - All refreshments during the course including dinner on the first night and an electronic copy of the available presentations and videos are provided.

Not included - Hard copy presentations are not provided. Should these be required there is an additional fee of $50.

Preferred Payment Methods:
Credit Card: Visa, Mastercard or AMEX only *. We cannot accept payment by any other card.
* Payment by Visa or MasterCard will carry a 1.5% surcharge / AMEX will carry a 2.75% surcharge.

Invoice: Please tick here to be invoiced □

Joining Instructions:
Joining instructions will be e-mailed to the registered delegate (as shown on the registration form). All details of presenters and updates to the programme will be included in the joining instructions. Please bring along a laptop to view the presentations.

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

Transport During the Course:
Delegates are responsible for their own travel arrangements at the beginning and end of each day.

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.

CPD Hours: CPD hours can be claimed for this course, please keep flyer and receipt for auditing purposes.

Please tick box if you do not wish to receive further SUT information □

Registration Form

Please e-mail completed form to perthevents@sut.org

Please tick to indicate your preferred payment method: SUT Member No.__________

Credit Card ___________________ (Visa, MasterCard or AMEX only)*

Invoice (PO No.) ____________________________

Name ________________________________ Please tick here if personally funding course □

Company ________________________________

Address ________________________________

E-mail address ____________________________ Tel No.__________________________

Credit Card No: VISA, MASTERCARD or AMEX ONLY * __________/________/________/_________

Exp. __________/________ Security no __________ (3 digit number for visa & m/c, 4 digit number for amex)

Name on the card _______________________________________________________________________

Billing Address if not as above __________________________________________________________________

E-mail address where receipt should be sent for credit card payment __________________________

Amount to be charged $ __________________ Signature ________________________________