Achieving Reliable Subsea Systems

One-day Course

20th November 2013

Ibis Hotel, (Salt Room) Murray Street, Perth



Are you surprised by how often we experience unexpected subsea failures? Are you striving for higher subsea production system reliability? If so, then this is the course for you!

What the Course will Deliver:

Overview of Subsea Reliability

Framework for achieving reliability targets

Interfaces with Subsea Integrity and Project Management

Contracting Strategies for Reliability

Key Decisions to be made

Tools and Methods

Industry Best Practice (New codes/stds.)

What happens if you get it wrong

Economic Benefits of getting it right

Who would benefit from attending this course:

Project Managers

Quality/Integrity Personnel

Reliability Specialists

Subsea Systems Engineers

Subsea Discipline/Package Engineers

Subsea Pipeline Engineers

Subsea Operations Personnel

Subsea Equipment Vendors

PROGRAMME

08.15 Registration

08.30 Welcome, Introduction Reliability Aims and Importance

- What do we mean by Subsea Systems Reliability and why is it important?
- What causes Subsea Unreliability and where do we need to focus?
- ♦ How will this course help you improve Subsea Reliability?

08.50 Framework for Subsea Reliability and Technical Management

- ♦ Key terms and definitions
- ♦ Objectives of a reliability strategy
- Overview of API RP 17N Reliability Management Framework
- Organisational models to enhance reliability management capability

10.00 Tea/Coffee

10.15 Reality of Reliability

- ◆ Data collection, reduction and validity.
- Systemic failures. Failure when everything is done 'well'
- ♦ Effects of low reliability examples
- Inertia of organisations, Hidden benefits of reliability,
- ♦ What is typically achieved, system
- Design—accommodation of Reality

11.15 Reliability Modelling (RAM) / Basic Probability Theory

- Reliability models and how they relate to what we do
- Some commonly used reliability models
- Understand how the models work and when they are useful
- Models outputs
- What is required to build reliability models
- What is probability
- Why you need to know this
- ♦ Standard definitions used in reliability engineering
- Statistics and distributions to analysis reliability

12.30 Lunch

13.00 Tools and Techniques

- Reliability Tools and the Design Stages
- ♦ FMEA & FMECAS
- ◆ Event Trees (ETA) Fault Tree Analysis (FTA)

13.45 Workshop

The class will be given a simple subsea system to actuate a valve. They will be then split into 3 groups, each group will tackle a specific task to analyse using different reliability tools eg. Fault Tree, RBD and ETA

14.30 Workshop presentations

14.45 Tea/Coffee

15.00 Economics of Reliability and Operability

- Project Failure Statistics
- ♦ Economic Impact of Reliability & Availability
- ♦ Operability—Impact on Production Availability
- ◆ System Design to achieve desired Operability/Availability
- ♦ Impact of System Design successful & not so successful examples

15.50 Contracting for Reliability—Workshop

In this workshop we will explore the answers to some questions, including:

- How does Contracting Strategy affect Reliability?
- ◆ Impact of differing Contracting strategies eg. Traditional vs EPCM vs Alliancing?
- ♦ The issues what we can do about them?
- ♦ What does the Customer (Operator) want?
- ♦ What is the ideal Contracting strategy?
- ◆ Can we provide Contract incentives for Reliability?

17.00 Wrap up / Course Close

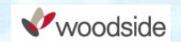
SUT reserves the right to change/amend the programme as it see fit.

Presenting Companies Include:









Registration Information

Achieving Reliable Subsea Systems

Should you require further information on this event, please contact Jennifer Maninin on j.maninin@sut.org Tel +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 - \$363.64 + GST = \$400Non Members - \$409.09 + GST = \$450

Fee includes - All refreshments, handout notes of the presentations & CD containing PDF versions of the presentations.

Preferred Payment Methods:

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

*Please note if paying by AMEX there will be a 2.75% surcharge.

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

Send to, SUT, 5/5 Hasler Road, Osborne Park, Perth, WA 6017

Please make sure you reserve a place by e-mail or fax before sending payment.

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.

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 Ibis Hotel.

Registration Form
Please e-mail details to Perthevents@sut.org or fax the completed form to +61 8 9446 9905
SUT Member No
Please tick to indicate your preferred payment method:
Credit Card (Visa, MasterCard or AMEX*) Cheque Invoice (PO No.)
Name
Company
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E-mail address Tel No
Credit Card No: VISA, MASTERCARD ONLY or AMEX 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 should be sent for credit card payment
Amount to be charged \$ Signature
(Reliability Nov 2013) V1