

Wednesday 3rd October 2018 - Operational integrity for oil and gas assets

08.45 Registration and networking

09.05 Welcome from the chair

Laura Forté CEng, Process Safety Lead, ConocoPhillips U.K.

09.15 Symposium technical sessions - Avoiding failures in the operational phase

Understanding risk in Maintenance Backlog to manage impact on Operational Integrity

Bob Taylor, Maintenance Specialist

Informed Inspection Repair and Maintenance - The value of data and working with constrained resources

Innes Auchterlonie, Managing Director, IMRANDD

Joint Q&A

10.05 Refreshments and networking

10.35 Symposium technical sessions – process safety

Offshore major hydrocarbon release risk: learnings from HSE's recent inspections of operational and asset integrity

Ashley Hynds CEng, HM Principal Inspector of Health and Safety – Offshore Process Engineering, Energy Division – Offshore, Health & Safety Executive

The shortsightedness of taking a short termism approach. The real need for collaboration in integrity management

Dr Edward Whyte, Principal Corrosion Engineer, Plant Integrity Management

Process safety in decommissioning projects

Michael Green, Technical Director – Safety & Reliability, Oil and Gas, Atkins

Joint Q&A

11.35 Symposium technical sessions – human factors

Energy Institute New Guidance on the Human Factors Aspects of Decommissioning

Bill Gall MEI, Human Factors Consultant, Kingsley Management

Elevating your competency system; moving from task performance to key competencies

Johanna Smith, Technical Process Safety Consultant, ABB

Increasing the effectiveness of operating procedures through the application of human performance principles

Steve McHugh, HES Manager, Chevron Upstream Europe, Chevron

New EI/CCPS guidance on best practice in integrating human factors into bowtie analysis

Professor Ron McLeod, Consultant, Ron McLeod

Joint Q&A

12.50 Lunch and networking

14.05 Sponsor round table discussions

Barrier awareness

What action does your company take to ensure everyone is involved in your operations;

- understands the Barriers that are relied on to protect against major incidents, and;
- Is aware of situations when their own decisions, actions or behaviour have the potential to defeat or degrade Barriers? What lessons or recommendations would you share to help others in the industry assure the reliability of Barriers that rely on human performance?
- who are the people (operators through to leaders), what is each person's role, who is the real owner, does everyone who has a role know what other people's roles are?

- who else can weaken/defeat the barrier?

Professor Ron McLeod, Consultant, Ron McLeod

Human factors become more important, not less, during decommissioning

Decommissioning essentially involves the end of most routine tasks (which presumably had been designed taking account of human factors), and the creating of new tasks, which might only be done once. It also involves huge changes to personnel – the loss of experienced people, a big influx of new contractors. This roundtable will explore what are the human factors issues you are most worried about in decommissioning your facilities.

How are you going to manage the changes to personnel?

How will you manage novel tasks?

How do you maintain a good safety culture?

Bill Gall MEI, Human Factors Consultant, Kingsley Management

Good Process Safety Management is not demonstrated by the absence of hydrocarbon releases, but by the presence of strong barriers

Strong barriers are achieved when: -

- Leadership sets the required standards, expectations and culture for process safety
- Good systems are in place to identify and manage asset integrity and operational integrity related risks
- The organisation effectively monitors compliance with its risk controls and the health of its barriers, investigates incidents and near misses getting to root cause, and incorporates the learning (from self and others) into its systems

For each of these elements in turn, share and discuss examples of good practice that you have seen.

- As an industry, which areas are we weak in?
- What can be done to help us improve?

Ashley Hynds CEng, HM Principal Inspector of Health and Safety – Offshore Process Engineering, Energy Division – Offshore, Health & Safety Executive

14.50 Refreshment break

15.20 Sponsor round table discussions

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- 16.05 Roundtable feedback and discussion**
- 16.30 Summary from the chair and closing remarks from the chair**
- 16.40 Drinks reception**
- 17.40 Event concludes**

Thursday 4th October 2018 – Asset integrity management for oil and gas assets

- 08.45 Registration and networking**
- 09.05 Welcome from the chair**
Dr Cameron Stewart CEng, Upstream Technical Manager, Energy Institute
- 09.15 Opening keynote – Asset Integrity and CUPS**
Edgar Rodrigues CEng MEI Chartered Energy Engineer, Corrosion and Materials Technical Authority, TAQA
- 09.35 Symposium technical sessions – Asset integrity**
 - Digital transformation in managing asset integrity**
Philip Buchan, Commercial Director, Cyberhawk Innovations
 - Safety critical maintenance compliance and optimisation framework**
Simon Lowe CEng, Principal Consultant, Xodus Group
 - Aging Assets Optimisation**
Hossam Aboegla, Project Manager for aging assets optimisation, Lloyd's Register
 - Joint Q&A
- 10.35 Refreshment and networking**
- 11.05 Symposium technical sessions – Asset integrity threat management**
 - High Energy X-ray Digital Radiography of Heavily Corroded Risers**
James McNab, NDE Technology Manager, Oceaneering International
 - Proactive design criterion to maximize the integrity, reliability and profitability of oil & gas assets**
Meshary Al-Bahli, Engineer IV, Saudi Aramco
 - Understanding the changes to vibration risk as assets age**
Rob Swindell CEng, Vibration Engineering Lead, Wood
 - The practical application of remote hull inspection techniques on Glen Lyon FPSO**
Sandy Miller CEng, Principal Naval Architect, Oceaneering
 - Developing guidelines for the integrity management of valves**
Matthew Barnett, Mechanical Technical Authority, Nexen Petroleum UK
 - Inspect and repair: a joined-up approach**
Jonathan White, Business Development Director, FOS Group
 - Assessment of Corrosion under Insulation and Engineered Temporary Wraps using Pulsed Eddy-Current Techniques**
Bill Brown, Technical Manager, TRAC Oil & Gas
 - Joint Q&A
- 13.05 Closing keynote - Ageing equipment - one size does not fit all: tailored approaches for managing deterioration and obsolescence**

13.25 Lunch and networking

14.20 Sponsor roundtable discussions

Addressing inspection data quality

To maintain oil & gas assets safely and profitably we need to make accurate and incisive decisions when determining how and when we should deploy inspection and maintenance resource. Good decision making needs to be based on good information and poor decisions because of poor-quality information can have huge safety and environmental consequences. However, there is often poor confidence in inspection data, especially legacy data that has been gathered over several years, with concerns over accuracy, completeness and consistency. As a result, preventable failures may be missed, data trending often remains the goal but not the reality and genuine anomalies can be missed in the “fog”.

Key points of discussion:

- Is the problem widely recognised?
- How big is the problem?
- What are the main causes of poor data quality?
- How is it currently being addressed?
- What could we do to improve?

Expected answers:

- Is the problem widely recognised? – YES
- How big is the problem? – Very big
- What are the main causes of poor data quality? – Inspector error, data input, inconsistency in reporting
- How is it currently being addressed? – It isn't really bar direct data input from inspectors at the site to inspection databases (which doesn't really address the problem.
- What could we do to improve? Standard naming conventions, smart error proofing, data cleansing and hopefully others I haven't thought of.

Innes Auchterlonie, Managing Director, IMRANDD

Human factors in NDT

It is well established from cross-industry trials and experience that the reliability of NDT inspection can be significantly affected by human performance issues. Examples of major trials where human factors on inspection have been addressed include the HSE PANI Project, PISC III in the nuclear industry, the US Aging Aircraft programme and the NIL POD trials. A common misconception is that the source of poor reliability is the inspector; this neglects the many other factors such as environment, organisation, team and procedure that impact on reliability. A more recent report focusing on the Oil and Gas industry was completed in 2018 through the joint industry project HOIS. It is hoped that the discussion raises awareness of the influence of human factors on the effectiveness and reliability of inspection in the offshore and onshore oil and gas industry.

Scott Westwater, ANDT Technical Authority, Bilfinger Salamis

Vibration induced fatigue in process pipework

The current Energy Institute document “Guidelines for the Avoidance of Vibration Induced Fatigue Failure in Process Pipework” is due to be updated and revised in 2019. The focus of this round table is to determine some of the key learning points from the document's use over the last 10 years and identify potential improvements and updates that could be given consideration for inclusion in the next revision.

Key points of discussion:

- What have we learned since the original guidance was issued in 2008?
- What are the experiences of using the guidance in design and operation?
- How can the document be improved?
- What are the topics that users would like to see updated or included?

Rob Swindell, Vibration Engineering Lead, Wood

Dr Cameron Stewart CEng, Upstream Technical Manager, Energy Institute

15.05 Refreshments and networking

15.35 Sponsor roundtable discussions

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resource. Good decision making needs to be based on good information and poor decisions because of poor-quality information can have huge safety and environmental consequences. However, there is often poor confidence in inspection data, especially legacy data that has been gathered over several years, with concerns over accuracy, completeness and consistency. As a result, preventable failures may be missed, data trending often remains the goal but not the reality and genuine anomalies can be missed in the “fog”.

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Rob Swindell, Vibration Engineering Lead, Wood

Dr Cameron Stewart CEng, Upstream Technical Manager, Energy Institute

16.20 Roundtable feedback and discussion

After the 2 45-minute breakout sessions have concluded, the conference will reconvene as one group for a 25 - minute feedback session, where the facilitators of each roundtable will present the outcomes of the discussions (barriers / solutions) had with their groups.

16.45 Summary from the chair and closing remarks from the chair

16.55 Event concludes