

RELIABILITY AND ASSET MANAGEMENT 2016

PREVENTING THE DETERIORATION OF ASSETS AND MAINTAINING A HIGH LEVEL OF RELIABILITY

Institution of
MECHANICAL ENGINEERS

27 April 2016

Institution of Mechanical Engineers
One Birdcage Walk, London

SPEAKERS INCLUDE:



Andy Mortimer
Asset Performance Manager
Heathrow Airport



Wolfgang Hahn
Head of Engineering
EDF Energy



Stephen Foot
Head of Asset Condition
London Underground



Mark Norris
Director
Asset Reliability Consultants Ltd



Gary Knight
Reliability and Integrity Engineer
Sabir Petrochemicals

More details available at
www.imeche.org/assetmanagement

Safety and Reliability Group
Seminar



RELIABILITY AND ASSET MANAGEMENT 2016

27 April 2016,
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PREVENTING THE DETERIORATION OF ASSETS AND MAINTAINING A HIGH LEVEL OF RELIABILITY.

Join us at **Reliability and Asset Management 2016** to address the technical engineering challenges in managing products, systems and spares across industries.

The main challenge facing reliability engineers continues to be the deterioration of products through usage and degradation, idleness, treatment and maintenance, as well as human factors such as loss of knowledge and skills.

Our expert speaker panel of thought leaders will outline new methods and processes to identify potential issues before they incur high rectification and compensation costs.

Who Should Attend

- Reliability Engineer
- Engineering Manager
- Principal Asset Engineer
- Principal Inspector
- Project Engineer
- Design Engineer
- Principal Reliability Engineer
- Asset Engineer
- Validation Engineer

WHY ATTEND:

- Hear case studies from a diverse range of industries including **transport and power**
- Learn new methods and processes in reliability management including **root cause analysis** and different aspects of life cycle engineering
- Engage in specialised interactive round table discussions on **human factors, storage, software, obsolescence and compatibility**
- Attend the only event to address key principles behind **management and reliability of assets** in the engineering



ORGANISING COMMITTEE

Safety and Reliability Group,
Institution of Mechanical Engineers

Members Credits:

Bob Wilson
Safety and Reliability Group,
Institution of Mechanical Engineers

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- **Showcase** new products
- **Raise** awareness of your operation
- **Improve** perception of your brand
- **Influence** other organisations' spending plans

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PROGRAMME

WEDNESDAY 27 APRIL 2016	
08:30	REGISTRATION AND REFRESHMENTS
09:00	CHAIR'S OPENING REMARKS
09:15	KEYNOTE: ASSET MANAGEMENT AND RELIABILITY LANDSCAPE Mark Norris, Director, Asset Management Reliability, Atkins <ul style="list-style-type: none">• What is Asset Management?• The Asset Management landscape and the principles of Asset Management• The scope of Asset Management and the 39 subjects of Asset Management• How Reliability Engineering contributes to Asset Management
RISK AND REVIEW	
09:40	LARGE POWER PLANT SHORT TO MEDIUM TERM LAY-UP AND PRESERVATION Wolfgang Hahn, Head of Engineering, EDF Energy <ul style="list-style-type: none">• General good practise to boiler and steam turbine lay-up• Practical approaches to achieving lay-up conditions• Risks and impacts of incorrect plant lay-up: Degradation mechanisms and potential failure modes• How to find the correct balance between plant preservation and response to starting plants up for generation• Challenges in achieving reliability after deep preservation during plant start up and return to service
10:05	QUESTION AND ANSWER SESSION
10:20	NETWORKING REFRESHMENT BREAK
ASSET KNOWLEDGE ENABLERS	
10:50	OBSERVING THE GAPS IN EFFECTIVE ROOT CAUSE ANALYSIS (RCA) IMPLEMENTATION Jane Goodacre, Principle Consultant, Performance 247 <ul style="list-style-type: none">• Understanding the real benefits of RCA• The Power of Inclusive Team Investigation• Understanding the Process of Failure versus a Solution Tool
LIFECYCLE DELIVERY ACTIVITIES	
11:15	LIFE CYCLE ENGINEERING: USAGE AND DEGRADATION Gary Knight, Senior Reliability Engineer, Sabic Petrochemicals <ul style="list-style-type: none">• How environmental, operational and maintenance aspects affect equipment• Degradation mechanisms and performance deterioration• Asset Performance Management principles
STRATEGY AND PLANNING	
11:40	HUMAN FACTORS ENGINEERING: A COGNITIVE APPROACH James Neophytou, Associate Partner, IBM Global Business Services <ul style="list-style-type: none">• How human factors influence design• Practical examples in the field• Using Artificial Intelligence and the new "Cognitive" era to improve outcomes
12:05	QUESTION AND ANSWER SESSION
12:20	NETWORKING LUNCH
ASSET MANAGEMENT	
13:20	A DATA DRIVEN APPROACH FOR THE MAINTENANCE AND MANAGEMENT OF LONDON UNDERGROUND'S ASSETS Stephen Foot, Head of Asset Condition Maintenance Engineering, London Underground <ul style="list-style-type: none">• London Underground's business context and challenges, which are driving a need to change our approach to maintaining and managing our assets• The objectives and scope of the Predict and Prevent Programme to support London Underground's service through the effective use of asset data• Case study demonstrating the effective use of asset data to support managing an integrated railway system
DECISION MAKING	
13:45	THE RELIABILITY JOURNEY AT HEATHROW Andy Mortimer, Asset Performance Manager, Heathrow Airport <ul style="list-style-type: none">• Why good reliability is important to Heathrow and the impact on the passenger• Turning "data" into "information"• Engaging with the workforce• What next?
RISK AND REVIEW	
14:10	MARINE RELIABILITY: SYSTEMS REDUNDANCY ON PASSENGER SHIPS Fergus McCulloch, Mechanical Engineer, Brookes Bell Safety at Sea <ul style="list-style-type: none">• Safe Return to Port philosophy: Why the ship is its own best lifeboat• System complexity on large passenger ships• Exploring the software solution
14:35	QUESTION AND ANSWER SESSION
14:50	NETWORKING REFRESHMENT BREAK
15:20	ROUND TABLE DISCUSSIONS <ul style="list-style-type: none">• How do we address human factors including retention of knowledge and ensuring continuity of support?• How does long term storage affect equipment and what are the best methods to prolong shelf life?• What are the best methods to safeguard against obsolescence and compatibility complications?• How can we prevent issues arising with software, particularly on ongoing developments?
16:20	SUMMARY OF DISCUSSIONS
16:40	CHAIR'S CLOSING REMARKS
16:50	END OF SEMINAR

For the most up-to-date and detailed programme for the event, please visit www.imeche.org/assetmanagement

- This programme is subject to change.
- The Institution is not responsible for the views or opinions expressed by individual speakers.

SPEAKERS AND CONTRIBUTORS

KEYNOTE SPEAKER

MARK NORRIS **DIRECTOR, ASSET RELIABILITY CONSULTANTS LTD, PRINCIPLE CONSULTANT, ATKINS**

Mark Norris has been a Reliability professional since 1998 and an Asset Management professional since 2007. Mark has been a Reliability and Asset Management Consultant since 2011 and is now a Principal Consultant with Atkins Management Consultancy division, providing Reliability Centred Maintenance training to Network Rail. He regularly presents on his specialist areas at seminars and symposia.

SPEAKERS

WOLFGANG HAHN **HEAD OF ENGINEERING, EDF ENERGY**

Wolfgang Hahn has 28 years of industry experience, including roles in the Marine Engineering Industry, Manufacturing Industry and Power Generation Industry (nuclear and non-nuclear). His current role as Head of Engineering within the Central Technical Organisation of EDF Energy means that he is responsible for dealing with all engineering matters related to the assets within the UK non-nuclear portfolio, exercise governance in terms of plant risk, integrity and safety, but also provide oversight against plant design intent to support safe, reliable operation of the UK fleet of coal, gas fired and wind driven generation within the UK.

STEPHEN FOOT **HEAD OF ASSET CONDITION, MAINTENANCE ENGINEERING, LONDON UNDERGROUND**

Stephen Foot has worked within the railway industry for 28 years primarily in roles associated with, and directly responsible for, the maintenance of railway infrastructure. A graduate from Sheffield University in Electrical and Electronic Engineering, his career started with railway signalling maintenance and progressed to managing infrastructure (signals, track, telecoms) maintenance and renewals. For the last 9 years he has been with London Underground, developing the use of monitoring technology to support asset maintenance. This role has evolved into being the technical lead for the Predict and Prevent Programme. This is about developing a data driven approach for the maintenance and management of London Underground's assets.

JANE GOODACRE **PRINCIPLE CONSULTANT, PERFORMANCE 247**

Jane Goodacre has delivered a wide range of performance improvement projects across different sectors but particularly specialises in maintenance, process and operational improvement. Although Jane has held senior positions in consulting she also has direct operating experience as the Reliability Facilitator for Shell Stanlowe Refinery. She has a very pragmatic approach to improvement work always looking for practical solutions and effective ways for these to be implemented. An international consultant, Jane has led projects in South America, Europe, Singapore and the USA. She is a highly regarded conference speaker and has chaired many of the leading reliability conferences globally.

FERGUS MCCULLOCH **MECHANICAL ENGINEER, BROOKES BELL SAFETY AT SEA**

Fergus McCulloch, for the last 20 years, has worked in a range of industries, including rail, oil and gas, nuclear power, offshore renewables and nuclear submarines, as well as being an apple packer in New Zealand. He got into Safety and Reliability almost by accident when a last-minute postgrad opportunity came up at Aberdeen University in 1995. In 2011 Safety at Sea, part of the Brookes Bell Group, welcomed him onto their team where he has been involved in a diverse range of marine safety projects.

JAMES NEOPHYTOU **ASSOCIATE PARTNER, IBM GLOBAL BUSINESS SERVICES**

James Neophytou is an Associate Partner at IBM. He leads the Asset Lifecycle Management practice in the UK and Ireland. James works extensively with industrial clients across Europe on predictive analytics and the Internet of Things. Born in Cyprus and raised in London, he attended the University of Birmingham. James' client-projects include engineering design, operational reliability and maintenance, capital construction and supply chain. He has worked at IBM for 14 years and with clients globally in the petroleum, manufacturing, industrial products and utilities sectors. He is a member of the Energy Institute.

ANDY MORTIMER **ASSET PERFORMANCE MANAGER, HEATHROW AIRPORT**

Andy Mortimer joined the Merchant Navy with Shell Tankers in 1976 as an Engineering Cadet, and sailed with Shell as an Engineer until 1985, developing a broad range of technical skills and a clear understanding of the need to be resourceful and creative in developing solutions. He joined Mars in 1985 covering a number of roles in both Engineering and Production Management, learning and growing in a process driven production environment. Andy started at Heathrow in 2009 as a Maintenance Manager for the Track Transit System in Terminal 5, and have subsequently been in a number of Asset Manager roles, more recently the Asset Performance Manager within the Engineering Delivery Team.

GARY KNIGHT **SENIOR RELIABILITY ENGINEER, SABIC PETROCHEMICALS**

Gary Knight is currently Senior Reliability Engineer on a petrochemical processing and polymer production site. Gary has had extensive experience in process and equipment improvement across a diverse industry base which includes automotive, food, steel and petrochemical.

BOOKING FORM

EVENT CODE: SEM6354

RELIABILITY AND ASSET MANAGEMENT 2016

27 April 2016, Institution of Mechanical Engineers, One Birdcage Walk, London
www.imeche.org/assetmanagement

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How did you hear about this event? Direct mail Website Colleague Other

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 News and updates from the Institution
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FEES AND CHARGES Please complete the appropriate box.

Registration fees include entry to the sessions, refreshments, lunch and a copy of the event proceedings.

FEES AND CHARGES	STANDARD RATE	TOTAL
Member, Institution of Mechanical Engineers	£340.00 + VAT	£
Member, supporting organisation	£340.00 + VAT	£
Non-member	£420.00 + VAT	£
Student/Retired	£95.00 + VAT	£

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Payment must accompany this registration form. Registration will be confirmed only on receipt of full payment.

PLEASE INDICATE METHOD OF PAYMENT:

- Cheque** Cheques should be made payable to IMechE and crossed. Please note international delegates may pay only by credit card, BACS or banker's draft. A copy of the draft must accompany this form. It is the delegate's responsibility to pay any bank charges.

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Card type: Visa MasterCard (please note we cannot accept American Express, Diners Club or Maestro)

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Please read the information listed below as each booking is subject to the Institution's standard terms and conditions.

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Completed application forms should be returned to the address above, along with the correct payment. Attendance at the event will be confirmed on receipt of the full balance. All participants are advised to bring a copy of their confirmation with them on the day, to ensure the fastest possible entry.

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Please inform us of any special requirements, ie dietary or access, on the relevant section of this form.

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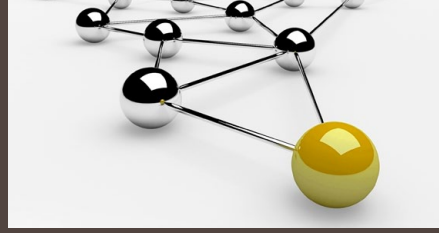


11 March 2016
ICC, Birmingham

MIDLANDS ENGINEERING DINNER

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www.imeche.org/midlandseengineeringdinner



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ANNUAL DINNER 2016

After dinner entertainment
Dara O'Briain
SAVE THE DATE



17 November 2016
The Dorchester Hotel, London

INSTITUTION OF MECHANICAL ENGINEERS' ANNUAL DINNER

The Institution's Annual Dinner will be returning to The Dorchester, London, Thursday 17 November 2016, to celebrate the engineering profession.

www.imeche.org/annualdinner2016

INFORMATION AND BOOKINGS

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See www.imeche.org/volunteering for more information or go to <http://nearyou.imeche.org>

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