

Andrew Mellor B.Eng. MSc. ACGI.

Andy is a Mechanical Engineer specialising in Condition Based Maintenance, Plant reliability improvement and Predictive / Proactive maintenance. He has a track record of successful machinery troubleshooting and root-cause analysis gained over 25 years in a wide range of industries. He is committed, tenacious, and passionate about quality. He has a detailed knowledge of Condition Monitoring (CM) techniques including vibration analysis, thermography, oil analysis & ultrasound and a broader understanding of the impact of equipment reliability on maintenance costs, production throughput and, ultimately, business performance. 12 years' experience offshore in the North Sea & West Africa.

Key Skills – Backed up by real life practical field experience

1. CM of rotating equipment and electrical distribution systems using Vibration Analysis, Thermography, Oil Analysis, Ultra-Sound and Acoustic Emission, Motor Current Signature Analysis and Machinery Performance
2. Set-up and management of CM and Condition Based Maintenance programmes. Introduction of new CBM programmes and management of cultural change in maintenance organisations.
3. Wide knowledge of Vibration analysis Hardware & Software products: CSI, SKF & Diagnostic Instruments data-collectors and @ptitude, RBMWare, Odyssey, Omnitrend, Polymanager and Prism4 software.
4. In-situ balancing of rotating machinery
5. Troubleshooting of rotating machinery: Resonance testing and correction, Operational Deflection Shape analysis, dynamic absorber design.
6. Troubleshooting of high-speed turbo-machinery using ADRE, Beran Instruments software, Zonic book / EZ-Tomas and System 1.
7. Extensive experience of monitoring slow moving and partially rotating bearings and gears
8. Measurement, assessment and correction of pipework and structural vibration severity
9. Performance testing of pumps using ultrasonic flow-meters / pressure gauges
10. Leak detection and performance optimisation of compressed air systems
11. Thermographic inspection of motor control centres and distribution systems and of refractory / insulation lined systems.
12. Transformer / dielectric oil sampling and interpretation of analytical results
13. 'Root-cause' failure analysis and examination of failed components.
14. Maintenance strategy optimisation / task selection using RCM-based logic.
15. Influencing craftsmen, supervisors, maintenance and plant managers, reliability engineers and executives.
16. Training in Condition monitoring and Condition Based Maintenance, Vibration analysis, thermography and ultrasound / acoustic emission

Education, Certification and Industry Training Courses

MSc (Distinction & course prize) in Maintenance Engineering & Asset Management (Part-Time, week-release) 2005 – 2008. Thesis “*Development of a Process for Maintenance Strategy Selection (Pragmatic MTS)*” nominated for a ‘European Excellence in Maintenance award’.

BEng (Sandwich) in Mechanical Engineering, University of London, Imperial College. 1985 – 1989

Offshore Survival / BOSIET: Due for refreshment on 2012-06-27

Offshore Medical Certificate: Due for refreshment on 2013-07-11

Vantage No: 0211867

CCNSG Safety Passport: Due for refreshment on 2012-04-20

Full UK Driving Licence

Vaccinated against a wide range of tropical diseases

Selection of key, non-technical training courses attended

Course	Provider	Days	Date
ISSOW Level 1	Petrotechnics	1	2011
‘Train The Trainer’	EEF North-West	2	2007
Managing Safely	NEBOSH	5	1995
Management Performance & Productivity	Ashorne Hill Management College	22	1994